

2-3 EDWARD VII.

SESSIONAL PAPER No. 25

A. 1903

ANNUAL REPORT

OF THE

DEPARTMENT OF THE INTERIOR

FOR THE YEAR

1901-1902

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

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EXCELLENT MAJESTY

1902

[No. 25—1903.]

*To His Excellency the Right Honourable Sir Gilbert John Elliot, Earl of Minto,
G.C.M.G., &c., &c., Governor General of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:—

The undersigned has the honour to lay before Your Excellency the Report of the transactions of the Department of the Interior for the fiscal year ending June 30, 1902.

Respectfully submitted,

CLIFFORD SIFTON,
Minister of the Interior.

OTTAWA, December 1, 1902.

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ANNUAL REPORT
OF THE
DEPARTMENT OF THE INTERIOR
FOR THE YEAR 1902

DEPARTMENT OF THE INTERIOR,

OTTAWA, November 15, 1902.

To the Hon. CLIFFORD SIFTON,

Minister of the Interior.

SIR,—I have the honour to submit the report of the Department of the Interior for the twelve months ending June 30, 1902, being the 29th annual statement since the inception of the department in 1873.

The results obtained during the year 1900-1 showed such a remarkable advance over the work of the preceding twelve months that it was scarcely expected that there could be a very large increase in the results obtained during the last season. Expectations in this regard, therefore, as shown by the returns submitted, would appear to have been more than fully realized. There was, it is true, a falling off in the gross receipts of the department, to which more special reference will be made later on, but as this is not a revenue department the success of the general results attending the work of the different branches of the service cannot be measured by the amount of revenue collected in connection with the disposal of the lands under the control of the Crown. The main object in view in framing the policy of the department has been the settlement of the country with a proper class of people and that this object has been fully attained is clearly demonstrated by the fact that the increased settlement in the west has been such within the last two years that the demand for holdings has caused the price of land and scrip to more than double in value. The agricultural capabilities of Manitoba and the North-west Territories are now questioned by no one. The bountiful harvests of last year and the year before have removed any doubt which might have existed in this regard, and that the utmost confidence now exists as to the suitability of western Canada as a field for settlement, especially amongst the classes to which we should look for the very best kind of farmers, is fully demonstrated by the continual stream of practical agriculturists who are now leaving the western states to seek homes in Manitoba and the North-west Territories. These results go to confirm the statement made last year that the methods employed by the department are the best

that could be devised under the circumstances. In fact, these methods have proved so successful that even in the event of a failure in the crops, which is less likely to occur as the country becomes more thickly settled, such a correct knowledge has been gained outside as to the real value of North-west lands, that the influx of immigrants in that direction is altogether likely to keep on increasing.

DEPARTMENTAL CHANGES.

One death occurred in the inside service of the department at Ottawa during the year, namely, that of Mr. Joseph de l'Etoile, which took place on the 23rd of May last. Mr. J. de l'Etoile had been in the employ of the government for over thirty years. One death occurred also in the outside service, namely, that of Mr. Roger Goulet, of St. Boniface, Man., who died on the 25th of March last.

With Mr. Roger Goulet passes away one of the few remaining figures who were intimately connected with the early history of the province of Manitoba. Mr. Goulet, before the entry of Manitoba into confederation, had been a member of the old council of Assiniboia, and, as one of the two official surveyors who laid out the holdings of the original settlers in the Red River country, his name has been prominently connected with matters affecting the early settlements. He rendered valuable service to the government during the many years that he was employed in the adjustment of Half-breed and other old land claims, and, while he retained at all times the implicit confidence and friendship of his compatriots, he remained loyal to the government of Canada, and did as much, perhaps, as any one in Manitoba towards conciliating the good-will of the Half-breed population.

Mr. F. F. Forbes, barrister, of Regina, was appointed registrar for the district of Assiniboia, on October 22, 1901, in lieu of Mr. H. W. Newlands, who was transferred to Dawson to fill the position of legal adviser left vacant by the resignation of Mr. Congdon.

Mr. James Bannerman, of Nelson, was appointed to the position of agent of Dominion lands for the district of Kamloops, B.C., on December 9, 1901, vice Mr. E. A. Nash.

Mr. J. W. Hannon was appointed agent of Dominion lands for the district of Prince Albert, on February 26, 1902, which position had been vacant for some time previously.

Mr. A. S. Harrison, of Edmonton, was appointed agent of Dominion lands for the district of Edmonton, on December 1, 1901, in place of Mr. R. A. Ruttan.

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STATEMENT showing Gross Revenue (Cash and Scrip) received from all sources during the fiscal year 1901-1902, compared with the receipts for the previous fiscal year, 1900-1901.

Revenue.	Fiscal year 1901-1902. Cash and Scrip	Fiscal year 1900-1901. Cash and Scrip	Increase.	Decrease.	Total net decrease.
	8 cts.	8 cts.	8 cts.	8 cts.	8 cts.
Dominion Lands.....	1,432,679 25	1,874,159 09		441,479 84	
School Lands.....	193,410 75	48,049 83	145,360 92		
Seed Grain.....	20,293 06	15,711 63	4,581 43		
Ordnance Lands.....	16,967 36	14,604 47	2,362 89		
Fines and Forfeitures.....	1,955 61	1,977 96		22 35	
Registration Fees.....	50,854 90	33,979 77	16,875 22		
Casual Revenue.....	3,900 62	1,587 57	2,313 05		
	1,720,061 64	1,990,070 32	171,493 51	441,502 19	270,008 68

REVENUE.

The gross revenue of the department for the fiscal year ending June 30 last, as shown by the foregoing statement, was \$1,720,061.64, being a decrease of \$270,008.68, as compared with the previous year. This statement covers all sources of revenue, including cash and scrip. On examination of the statement immediately following showing the receipts on account of Dominion lands from July 1, 1872, to June 30 last, it will be observed that the decrease is chiefly attributable to the falling off in the revenue derived from the royalty on gold mined in the Yukon. It is gratifying to note, however, that there has been a very substantial increase in the amount paid in as homestead fees. In fact, the sum received for this service, namely, \$144,425, exceeds that of any year since 1872, and is almost as large as for the two preceding years combined, and more than twice as large as for the year 1882-3, at the time of the Manitoba 'boom,' when there was such an unprecedented and abnormal demand for free homestead lands. The gross amount paid in on account of timber dues, namely, \$207,790.90, is nearly similar to the year 1900-1, when it went up as high as \$209,399.32, which was the largest amount ever collected under this head. The cash revenue derived from sales of Dominion lands was over \$25,000 in excess of the previous year, but there was a very considerable falling off in the amount of scrip redeemed, which also goes to make up for the decrease in the gross revenue of the department.

In 1900-1, consequent upon the large issues of scrip to Half-breeds in Athabaska and the North-west Territories, there was a very large increase in the purchase of land on which scrip was applied in payment, in fact, the amount received on this account, namely, \$326,270.03, was the largest since the Half-breed grant of 1885-6. As much of this scrip has now been redeemed, the amount which will be paid in in scrip in future will gradually diminish.

On the whole, therefore, while there has been a falling off in the revenue from mining fees and scrip, there has been the same substantial and corresponding increase in the receipts on account of Dominion lands generally, as will be found in the returns of entries for free homesteads, land sales and immigrant returns.

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STATEMENT showing Receipts on account of Dominion Lands from July 1, 1872, to June 30, 1902 *Concluded.*

Fiscal Year.	GRAZING LANDS.		HAY PREMISES, MINING FEES, STONE QUARRIES, &c.		Rocky Mount of Canada.	COLONIZATION LANDS.		Gross Revenue.	Refunds.	Net Revenue.
	Scrip. &c.		Cash.	Scrip.		Cash.	Scrip.			
	\$	cts.								
1872-73.								26,229 45		26,229 45
1873-74.								29,980 80		29,980 80
1874-75.								27,641 15		27,641 15
1875-76.								8,865 94		8,865 94
1876-77.								140,755 02		140,755 02
1877-78.								139,584 40		139,584 40
1878-79.								234,732 93		234,732 93
1879-80.								206,801 37		206,801 37
1880-81.	2,245 00		40 00					206,990 54	4,636 08	202,354 46
1881-82.	22,844 43		913 91					1,805,734 87	5,038 22	1,799,696 65
1882-83.	11,370 60		640 90					1,051,403 60	10,687 55	1,040,716 05
1883-84.	17,089 75		815 63					1,001,776 67	8,746 65	993,030 02
1884-85.	29,562 51		1,284 83					451,564 65	12,070 85	439,493 80
1885-86.	14,242 77		1,570 40	80 00				585,532 95	63,389 12	522,143 83
1886-87.	3,922 47		2,273 73	80 00				568,596 68	19,543 16	549,053 52
1887-88.	2,207 69		3,946 55					568,596 68	6,277 66	562,319 02
1888-89.	1,305 57		9,242 68					594,088 04	5,226 23	588,861 81
1889-90.	3,079 55		8,238 44	160 00				462,536 26	8,269 74	454,266 52
1890-91.	3,726 80		5,616 85					460,990 76	7,195 27	453,795 49
1891-92.	6,380 80		6,243 15					452,151 08	15,291 39	436,859 69
1892-93.	5,740 79		6,243 15					392,324 43	18,314 97	374,009 46
1893-94.	5,353 72		5,229 54					250,069 12	4,514 01	245,555 11
1894-95.	7,071 86		8,628 00					292,983 90	4,365 99	288,617 91
1895-96.	4,715 01		6,255 90					257,694 93	8,368 79	249,326 14
1896-97.	4,715 01		8,518 18					206,853 57	15,010 54	191,843 03
1897-98.	510 39		699,334 76					1,009,741 63	4,678 55	1,005,063 08
1898-99.	4,083 30		1,638,195 42					1,584,328 32	32,286 39	1,552,041 93
1899-1900.	8,382 86		1,101,808 33	20 00				1,503,743 00	23,062 28	1,480,680 72
1900-1901.	4,726 28		14,671 99	1,101,808 33	4,047 31			1,874,150 09	18,368 85	1,855,781 24
1901-1902.	7,292 46		8,409 27		2,861 13			1,432,679 25	27,081 43	1,405,597 82
	173,235 38		189,171 76	4,774,632 37	42,902 28	857,461 08	30,400 50	17,602,907 40	331,623 62	17,271,283 78

DEPARTMENT OF THE INTERIOR

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STATEMENT showing yearly the Gross Revenue (in cash only) received from all sources during the fifteen years ending June 30, 1902.

Fiscal Year.	Dominion Lands (Cash).	School Lands.		Seed Grain.		Ordnance Lands.		Fines and Forfeitures.		Registration Fees.		Casual Revenue.		Total.		
		£	cts.	£	cts.	£	cts.	£	cts.	£	cts.	£	cts.			
1887-1888	223,300	73	42,045	11	26,146	13	36,239	88	1,267	05	7,212	02	372	79	310,407	58
1888-1889	243,046	84	52,354	94	5,017	44	42,072	07	729	25	6,543	53	1,073	36	371,978	12
1889-1890	224,770	16	45,188	57	5,017	44	29,921	61	958	75	8,806	39	261	03	311,984	55
1890-1891	208,751	35	38,828	33	5,385	00	54,229	65	1,505	02	10,866	65	627	81	380,282	45
1891-1892	337,100	07	136,131	80	5,957	65	42,360	80	788	92	9,302	11	532	14	532,179	49
1892-1893	303,550	86	82,615	22	5,866	21	33,776	90	777	00	10,750	38	1,331	36	438,668	53
1893-1894	214,540	30	47,574	11	2,339	16	22,318	20	861	15	10,358	02	1,982	04	290,575	98
1894-1895	171,085	48	47,665	10	2,752	56	22,645	97	693	85	9,811	77	875	36	255,330	09
1895-1896	174,509	38	56,584	32	8,748	05	17,550	28	592	00	8,737	87	1,920	66	268,552	56
	2,160,721	17	548,985	50	62,212	80	301,115	40	8,185	99	82,448	74	8,979	75	3,172,649	35
1896-1897	187,494	19	24,292	43	9,887	13	9,831	27	1,316	00	8,907	24	2,683	05	244,431	31
1897-1898	980,313	10	52,410	82	12,351	71	22,537	17	529	06	14,263	50	260	92	1,082,046	28
1898-1899	1,563,020	74	41,249	77	12,388	69	12,349	65	2,801	03	19,290	73	2,620	91	1,653,651	52
1899-1900	1,410,883	48	226,874	78	15,271	84	11,043	53	1,432	92	21,751	90	3,464	00	1,684,942	45
1900-1901	1,533,107	07	48,049	83	15,711	63	14,604	47	1,977	96	33,979	77	1,387	37	1,649,108	20
1901-1902	1,254,383	56	153,410	75	26,293	06	16,967	36	1,953	61	50,854	99	3,900	62	1,541,715	45
	6,929,172	14	580,288	38	85,904	06	87,333	45	10,632	58	149,068	13	14,717	07	7,856,515	81
	9,080,803	31	1,129,273	88	148,116	86	388,448	85	18,218	57	231,516	87	23,486	82	11,029,165	16

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STATEMENT of Revenue on account of Registration Fees for twelve years from July 1, 1890, to June 30, 1902.

Fiscal Year.	Assiniboia Registration District. (Regina.)	North Alberta Registration District. (Edmonton.)	South Alberta Registration District. (Calgary.)	East Saskatche- wan Registration District. (Pr. Albert.)	West Saskatche- wan Registration District. (Battleford.)	Yukon Territory Reg' stration District. (Dawson.)	Total.
	8 cts.	8 cts.	8 cts.	8 cts.	8 cts.	8 cts.	8 cts.
1890-91	5,382 16	585 82	5,554 35	2,021 37	89 61	.....	13,583 31
1891-92	4,810 89	1,160 56	4,090 52	1,409 34	156 32	.....	11,627 63
1892-93	6,042 15	1,982 33	4,146 02	1,157 21	110 27	.....	13,437 98
1893-94	6,236 41	2,722 74	2,852 44	1,049 65	86 29	.....	12,947 53
1894-95	5,161 74	2,653 97	3,219 50	730 22	89 23	.....	11,854 66
1895-96	4,489 29	2,713 66	2,097 61	728 20	73 20	.....	10,101 96
1896-97	5,339 55	1,900 76	1,991 90	848 75	123 78	.....	10,204 74
1897-98	7,411 33	2,485 45	3,526 85	737 50	102 37	.....	14,263 50
1898-99	9,275 55	3,553 73	3,608 90	1,151 95	31 75	1,598 85	19,220 73
1899-00	11,222 65	5,395 50	4,078 44	1,354 10	189 15	2,471 85	24,711 69
1900-01	14,317 20	6,995 50	5,207 43	1,662 70	51 13	5,745 81	33,979 77
1901-02	18,893 55	11,701 70	8,190 78	3,081 73	71 18	8,916 05	50,854 99
	98,532 47	43,851 72	48,564 74	15,932 72	1,174 28	18,732 56	226,788 49

LAND TITLES OFFICES.

Attention was called last year to the increase over the previous year in the gross amount paid for registration fees. It will be observed that there has been a substantial increase during the twelve months ending June 30 last. The revenue collected under this head exceeds by nearly \$17,000 that for the preceding year, and was five times as large as that for 1896-7. This is one of the best indications, I think, of the growing demand for improved farm lands in the west, and of the continued improvement in real estate value.

STATEMENT of Land Sales by Railway Companies having Government Land Grants and by the Hudson's Bay Company.

Name.	1893.		1894.		1895.		1896.		1897.	
	Acres.	Amount	Acres.	Amount	Acres.	Amount	Acres.	Amount	Acres.	Amount
				8		8		8		8
Hudson's Bay Company			7,526	48,225	4,431	23,209	9,290	52,410	10,784	53,277
Canadian Pacific Railway Co.	93,184	295,288	43,155	131,628	55,453	176,950	66,624	220,360	135,681	431,095
Manitoba South-Western Colonization Railway Co	14,164	57,559	6,312	28,003	5,623	22,330	21,254	88,568	63,800	234,644
Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Company.	1,603		640		2,391		286		2,524	
Calgary and Edmonton Railway Company.	11,260		11,635		46,815		10,553		9,436	
Total	120,211	352,847	68,668	207,856	114,713	222,489	108,016	361,338	222,225	719,016

STATEMENT of Land Sales by Railway Companies, &c. *Continued.*

Name.	1898.		1899. (Fiscal Year.)		1900. (Fiscal Year.)		1901. (Fiscal Year.)		1902. (Fiscal Year.)	
	Acres.	Amount. \$	Acres.	Amount. \$	Acres.	Amount. \$	Acres.	Amount. \$	Acres.	Amount. \$
Hudson's Bay Company	62,000	310,000	56,875	274,025	70,195	352,631	82,308	390,804	260,577	1,412,332
Canadian Pacific Railway Company	242,135	757,792	261,832	814,857	379,091	1,132,836	339,985	1,045,065	1,362,478	4,440,500
Manitoba South-Western Colonization Railway Company	106,473	363,982	58,019	199,438	133,507	437,449	59,749	214,353	296,411	713,365
Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company	22,534	..	61,030	178,517	18,932	53,974	22,296	74,810	39,835	147,365
Calgary and Edmonton Railway Company	15,481	..	24,738	53,335	46,653	128,256	116,719	352,037	323,494	1,033,266
Total	448,023	1,431,774	462,494	1,520,792	648,379	2,145,146	621,027	2,088,269	2,501,705	7,746,468

LAND SALES.

The foregoing statement shows the land sales of some of the largest companies holding grants from the government. The total area of the land thus sold amounted to 2,201,795 acres, being 1,580,768 acres over the previous year. The combined area of land disposed of by the department under homestead entry, sale, and in redemption of Half-breed scrip, and by the railway companies mentioned in the statement referred to, gives a total area of 4,954,847 acres. These figures would seem to indicate clearly that the possibilities of the vast wheat areas extending throughout the fertile belt of the Canadian west command more attention to-day, at home and abroad, and especially in the United States, than at any time since the transfer of the Hudson's Bay territory to the Dominion of Canada, over thirty years ago. When it is considered that in 1896, 108,016 acres of land were sold by companies and during the same year 1,857 homestead entries were granted by the department; that in 1899, 462,494 acres were sold and 6,689 entries were made, and that during the past year 2,201,775 were sold by companies and 14,633 entries granted by the department, there can be no doubt that the demand for lands by purchase increases in the same ratio as the settlement of the country by actual settlers under free homestead entry progresses. This is certainly a very satisfactory indication of the healthy condition of the land market, and while the steadily increasing demand for land has caused a corresponding enhancement in the price asked for, such price cannot be affected by the fluctuations caused by speculative transactions, as there has also been a corresponding increase in the acreage of land which has been rendered productive by cultivation. Although land which some few years ago remained idle and could not be disposed of at one or two dollars per acre, and was even often sold for municipal taxes, to-day commands as high as fifteen or twenty dollars per acre, the price demanded is perfectly normal and dependent entirely upon the intrinsic value of the land.

It has also been reported that over 800,000 acres of land, which are not included in the statement above referred to, were sold some time ago by the Qu'Appelle, Long Lake and Saskatchewan Railway Company to the Saskatchewan Valley Land Company. This would still further increase the total area of land disposed of last year by the government and the companies mentioned in the statement to nearly 5,000,000 acres.

The following is a comparative statement of the homestead entries and sales which have been made at the several agencies of the department during the Fiscal Year ending June 30, 1901, and June 30, 1902, respectively :—

	Fiscal Year June 30, 1901.		Fiscal Year June 30, 1902.	
	No. of Entries.	Acres.	No. of Entries.	Acres.
Homesteads	8,162	1,188,160	14,633	2,341,280
Sales		91,539		76,256

REPORT OF THE DEPUTY MINISTER

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The following statement shows the number of homestead entries reported in each year since 1874:—

Departmental Year ended	Number of Entries.
October 31, 1874.....	1,376
“ 31, 1875.....	499
“ 31, 1876.....	347
“ 31, 1877.....	845
“ 31, 1878.....	1,788
“ 31, 1879.....	4,068
“ 31, 1880.....	2,074
“ 31, 1881.....	2,753
“ 31, 1882.....	7,483
“ 31, 1883.....	6,063
“ 31, 1884.....	3,753
“ 31, 1885.....	1,858
“ 31, 1886.....	2,657
“ 31, 1887.....	2,036
“ 31, 1888.....	2,655
“ 31, 1889.....	4,416
“ 31, 1890.....	2,955
“ 31, 1891.....	3,523
“ 31, 1892.....	4,840
“ 31, 1893.....	4,067
“ 31, 1894.....	3,209
December 31, 1895.....	2,394
“ 31, 1896.....	1,857
“ 31, 1897.....	2,384
“ 31, 1898.....	4,848
“ 31, 1899.....	6,689
June 30, 1900.....	7,426
“ 30, 1901.....	8,167
“ 30, 1902.....	14,633

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FREE HOMESTEAD ENTRIES.

The number of entries made during the twelve months ending June 30 last, amounted to 14,633, covering an area of 2,341,280 acres, which was an increase of 6,466 over the preceding year, which was itself the largest in the history of the department,

Since 1872, 111,663 entries in all have been made, covering an acreage in round numbers of 17,864,080. During the twenty-three years preceding 1896, 67,516 were made, covering an area of 10,802,560 acres, or an average of 2,935 entries per year, covering an area of 469,600 acres. During the six years since 1896, 44,147 entries were made, covering a total area of 7,063,520, or a yearly average of 7,358 entries, covering an area of 1,177,280 acres. To show the remarkable progress which has been going on in the west within the last few years, it may be interesting to call attention to the fact that during the last three years there were 30,226 homestead entries recorded as compared with 13,921 for the preceding three years, and 7,460 for the three years ending December 31, 1896. These figures fully bear out the statistics furnished by the department with regard to immigrant arrivals who have settled in Manitoba and the North-west Territories. There seems to be every reason to believe that the flow of immigration towards western Canada has set in for good and that the success of the homesteaders who have taken up holdings, especially during the last year, will prove an excellent means of advertising the advantages offered by western Canada as a field for settlement.

It may be interesting to mention further that during the months of July, August and September of the present year there were 5,961 entries granted, as compared with 2,255 for the corresponding months of the year 1901-2, or an increase of 3,706 in favour of this year.

DEPARTMENT OF THE INTERIOR

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STATEMENT showing the Number of Letters Patent issued by the Department in each year since 1874.

	Period.	Number issued.
Year ended October 31, 1874.		536
" 31, 1875.		492
" 31, 1876.		375
" 31, 1877.		2,156
" 31, 1878.		2,597
" 31, 1879.		2,194
" 31, 1880.		1,704
" 31, 1881.		1,768
" 31, 1882.		2,766
" 31, 1883.		3,591
" 31, 1884.		3,837
" 31, 1885.		3,257
" 31, 1886.		4,570
" 31, 1887.		4,599
" 31, 1888.		3,275
" 31, 1889.		3,282
" 31, 1890.		3,273
" 31, 1891.		2,449
" 31, 1892.		2,955
" 31, 1893.		2,936
" 31, 1894.		2,553
Year ended December 31, 1894.		2,682
" 31, 1895.		2,118
" 31, 1896.		2,665
" 31, 1897.		2,972
" 31, 1898.		3,037
" 31, 1899.		3,904
Six months ended June 30, 1900.		1,970
Year ended June 30, 1901.		6,461
" 30, 1902.		8,768

There has been an increase of over 2,300 patents issued during the year. The number of patents will, of course, go on increasing in proportion to the number of entries recorded. As will be observed from the report of the acting chief clerk, which will be found under Part 25 of the Dominion lands division of the report, the work of the Patent Office has now been so systematized as to cope with any demand which may be made upon it in the way of record and of the issuing of patents. The time which extends from the receipt of the recommendation for the issue of patent from the Commissioner of Dominion Lands to the actual issue and transmission of the patent itself has been minimized and the settler will not now have to contend with any vexatious delays in this regard.

REPORT OF THE DEPUTY MINISTER

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CORRESPONDENCE.

The following statement shows the number of letters received and sent by the department in each year since its establishment :

Departmental Year ended October 31.	Letters Received.	Letters Sent.	Total.
1874..	3,482	4,120	7,632
1875..	1,974	2,189	4,163
1876..	2,256	3,097	5,353
1877..	3,137	3,677	6,814
1878..	4,642	6,009	10,651
1879..	5,586	6,179	11,755
1880..	8,222	9,940	18,162
1881..	13,605	15,829	29,434
1882..	25,500	30,300	55,800
1883..	27,180	33,500	60,680
1884..	27,525	33,386	60,911
1885..	33,970	43,997	77,967
1886..	60,964	67,973	128,937
1887..	47,845	60,890	108,735
1888..	43,407	52,298	95,705
1889..	48,316	50,500	98,816
1890..	36,200	36,008	72,208
1891..	38,000	36,267	74,267
1892..	41,990	42,203	84,193
1893..	50,794	48,145	98,939
1894..	48,619	50,840	99,459
1895..	49,991	45,808	95,889
1896..	47,501	44,238	91,739
1897..	65,714	64,147	129,861
1898..	88,913	87,845	176,758
1899..	95,023	91,876	186,899
1900..	121,219	133,177	254,396
1901..	144,978	136,348	281,326
1902..	167,200	185,548	352,748

The number of registered letters during the departmental year, 1902, was :
Received, 5,307 ; sent, 15,438.

As will be observed there has been a very considerable increase in the correspondence of the department during the past year. It may be interesting to note in this relation that during the past six years 1,581,988 letters have been received and sent by the department as compared with 544,486 of the previous six years. This gives a yearly average of 90,747 for the latter period, and 230,331 for the last six years, or an average increase of 250 per cent.

IMMIGRATION.

The report and returns in connection with the immigration service will be found under Part II.

As will be observed the outside officers of the department are unanimous in their appreciation of the class of immigrants that have arrived in Canada during the year. As I had occasion to mention in my report of last year the importance, in the interest of Canada, of securing the most desirable type of settlers cannot on any account be lost sight of and those most intimately connected with the selection of subjects, both in the United States and in the old country, would seem to have kept this point well in view.

DEPARTMENT OF THE INTERIOR

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The new accessions to our population during the past few years, in so far as settlement in western Canada is concerned, are of a highly desirable class, being composed chiefly of experienced farmers possessed of considerable means. This careful selection, it is needless to say, has contributed in no small measure to the unprecedented movement of population to Manitoba and the North-west Territories, as the success of the new comers has naturally moved others to follow them.

The total arrivals, according to the report of the Superintendent of Immigration, number 67,379, which is an increase of 18,230 over the preceding year. Of this number, the Commissioner of Immigration at Winnipeg reports that 55,261 were recorded at his office as compared with 32,005 for the preceding fiscal year.

The following table shows the total annual immigration from 1897 to 1902, inclusive, classified according to the various countries from which the same was derived:—

	1897.	1898.	1899.	1900.	Total for Calendar Years 1897 to 1900, inclusive.	1901 (fiscal).	1902 (fiscal).
English and Welsh	9,393	9,475	8,576	8,184	35,639	9,401	13,095
Scotch	1,239	1,400	1,337	1,411	5,387	1,476	2,853
Irish	751	733	747	765	2,948	933	1,311
Galicians	3,917	4,010	6,700	6,593	21,325	4,702	6,550
Germans	636	563	780	705	2,691	984	1,048
Hungarians			276	530	806	546	1,048
Austrians	540	740	131	248	1,389	228	320
Scandinavians	718	724	1,326	2,380	5,638	1,750	2,451
Doukhobors			7,350		7,350		
French and Belgians	740	545	413	483	2,181	492	654
Russians and Finlanders			735	2,067	3,603	1,726	3,759
United States	712	9,119	11,945	15,500	37,276	17,987	26,388
Miscellaneous	1,370	3,703	4,027	5,831	15,027	8,924	7,902
Total.	20,116	30,742	44,543	44,697	141,261	49,149	67,379

From this it will be seen that there has been an increase in the arrivals from the continent of Europe, Great Britain and the United States, the largest increase proportionally, as compared with last year, being from Great Britain and Ireland.

The approximate expenditure during the past fiscal year chargeable against immigration from the countries above mentioned, not including the expenses connected with the reception and location of immigrants, was as follows:—

Continent of Europe	\$ 58,000 00
Great Britain and Ireland	121,000 00

The per capita cost of immigrants during the same period, as compared with 1901, was as follows:—

	1901.	1902.
Continental	\$2 65	\$2 44
British	9 58	7 01
United States	7 96	6 74
Average per capita	6 11	5 29

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The total average per capita cost, including expenditure in caring for and looking after settlers in Canada, was \$7.34, or a reduction of \$1 as compared with the preceding year.

BRITISH AND CONTINENTAL IMMIGRATION.

As already pointed out above, there has been a substantial advance over last year in the number of immigrants that have come to Canada from the British Isles during the past season. The reason for this advance is explained in the reports of the High Commissioner for Canada in London, and of Mr. W. T. R. Preston, Canadian Commissioner of Emigration for Great Britain and Europe, and is chiefly attributable to the new methods which were devised at the time of the special visit I made to the old country in the month of January last, the details of which are fully set out in the report which I submitted to you in this relation after my return, and which will be found appended hereto. The changes which were brought about under my supervision in the work of our immigration service on the other side, and the measures adopted to bring the advantages offered by the Canadian west as a suitable field for settlement more prominently before the classes from which the most desirable settlers can be drawn, may be summarized as follows:—

The dissemination of carefully prepared notices with regard to the advantages offered by Canada as a field for settlement, in the leading dailies and weeklies of Great Britain.

The forwarding of a specially edited publication to every agriculturist in the old country, as well as a circular on somewhat similar lines to ministers of the gospel, school teachers, secretaries of public libraries, &c., &c., &c.

The delimitation of specific districts within which our resident agents operate.

The appointment, under a commission system, of local agents in every city and town throughout the agricultural districts.

The providing of specially conducted parties under the supervision of our officers in Great Britain and Ireland, and the reorganization of the staff in such a way as to expedite the general business of the service, and thus ensure the best possible results from their work.

That the changes brought about have acted as a stimulus to the movement of population from the other side is amply demonstrated by the notable increase in the figures given in the foregoing statement.

It is therefore proposed to continue the work on the same lines during next season, making such changes as may be deemed necessary to further perfect the methods inaugurated this year, and it is hoped that the success of those who have already taken homes in the Canadian west, coupled with the influence which the ever increasing stream of immigration from the English-speaking states of the Union is likely to exert upon the minds of the emigrating classes in the old country, will co-operate to turn the tide of British emigration towards Canada.

CONTINENTAL IMMIGRATION.

Although the department has not been carrying on a very direct propaganda in the countries of Europe, there has been a substantial increase in the number of arrivals from the continent, most of whom have taken up farms in Manitoba and the Northwest. Possibly the surest indication that the settlers brought in are of a desirable class is that they are self-sustaining and are gradually becoming merged with the different groups of the population who have already made a success of their farming pursuits. As far as I am aware, the settlers that have come within the last three or four years are thoroughly content and prosperous, and no cases of distress or actual want on the part of new arrivals have come to the knowledge of the department.

THE DOUKHOBORS.

I desire to call attention to the reference made in the report of the Commissioner of Immigration to this particular class of settlers. The colonies located in the vicinity of Prince Albert are reported to have done remarkably well, and to be quite satisfied with the country. Some dissatisfaction, however, would appear to have arisen in connection with the other colonies in the vicinity of Yorkton, as a result of the influence exercised over the men by an agitator who recently settled amongst them. A number of these settlers, moved apparently by some unexplainable excess of religious fervour, left their colonies, for what reason it has not yet been made clear. It is not unreasonable to suppose that the movement had its primary cause in the fact that these people are prosperous to-day beyond their most sanguine expectations. However, it is satisfactory to note that as a result of the department's timely action in the matter, these settlers have been made to understand that it would be to their advantage to return to their farms, and they are now again located in their colonies.

It may be added that the Doukhobor settlers composing these colonies have been very successful in their farming operations, and they are in consequence amply supplied with the necessary provisions to enable them to pass the winter comfortably.

IMMIGRATION FROM THE UNITED STATES.

The returns of arrivals from the United States again show a large increase over the preceding year. The reports of the agents operating in that country will no doubt be read with much interest. The settlers that continue to cross the border, in ever increasing numbers, and settle within the wheat-growing areas of Manitoba and the Territories, are certainly of a very desirable class. The current of immigration from the United States since 1898 has been a steady one, and it has now assumed such proportions that it is bound to increase in volume from year to year. The fact is now well known to every agriculturist in the western states, as a result of the system of advertising and propaganda that has been carried on there for a few years, that the soil of the Canadian west is the best suited in the world for the growing of wheat and other cereals, and that there are still millions of acres of such land available for entry or for purchase at a reasonable price. The enterprising farmer, realizing that every foot of the public domain within the boundaries of his state has already been disposed of, will

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not fail to see the opportunity of seeking in Canada the free homestead for which he would look in vain to-day at home. Upwards of eighty-six thousand settlers from the United States have located in Manitoba and the North-west Territories since 1897, and from the present indication it is reasonable to predict that double that number will cross the border during the coming five years.

LAKE ST. JOHN DISTRICT.

I had occasion to visit the Lake St. John region at the beginning of the summer, and I may say that I was greatly pleased with the progress which has been made there since my last visit some four years ago.

This district, which is situated some 200 miles north of Quebec, contains a vast area of land fit for cultivation. While a great deal of it is timbered, yet it has been found very easy to clear and the sale of timber by the settlers has given them a very fair return for their labour in clearing the land to bring it under cultivation. The rapidity with which small towns are growing up in this district reminded me of the development of the west in the early eighties. Among other settlements which have sprung up within the last year is one known as Little Peribonca, which is located on a beautiful water power of the Little Peribonca river. This town has now a pulp mill in full operation and a large number of dwellings, is lighted by electricity, and presents a very substantial appearance.

Another place visited and which shows how quickly the district is developing, is Mistassini, and in which town is located the Trappist Monastery, the fathers in connection with which have very clearly demonstrated the productiveness of the soil in that district by their magnificent gardens.

I am strongly of the opinion that the surplus population of the rural districts of the agricultural counties of Quebec should be offered strong inducements to locate in the Lake St. John district. I think that these, and French Canadian settlers from the eastern states, ought to be encouraged to take up these lands in preference to foreign population, as the conditions are such as would ensure more satisfactory results from those who have resided in the province and know all the circumstances attending the clearing and opening up of lands such as those in the district referred to. There is perhaps no better soil anywhere than is to be found in that district, and while the clearing of the land to some may be an insurmountable obstacle to locating, yet to those who understand it and know how to make the most of it, as the French Canadians do, it is an easy matter.

A very active propaganda, therefore, in the province of Quebec, by those interested in the settlement of the Lake St. John district,—especially in those portions of the province from which numbers of young men are said to be moving, some of whom are going to the United States,—is what is required in order to ensure the settlement of the district by the most desirable class of persons. The object lessons one sees in travelling through this part of the country would seem to establish very clearly the fact that the district is a very desirable one in which to live. In addition to its ex-

cellent soil and other conditions which assist in making it a very great farming country, it is watered by seven magnificent streams, nearly all of which flow into Lake St. John.

CROPS.

CROPS IN MANITOBA AND THE NORTH-WEST TERRITORIES.

The crops of 1901 in Manitoba, British Columbia and the North-west Territories were extremely satisfactory. The total area under crop for 1902 is given as 4,079,927 acres, an increase over 1901 of 359,551 acres. The grain crop for 1901 reached the large total of 109,000,000 bushels.

By way of comparison the following figures are interesting:—

GRAIN CROPS.

NORTH-WEST TERRITORIES.

YEAR.	WHEAT.		OATS.		BARLEY.	
	Area, Acres.	Bushels.	Area, Acres.	Bushels.	Area, Acres.	Bushels.
1900	412,864	4,028,294	175,439	4,226,152	17,044	353,216
1901	504,697	12,808,447	226,568	9,716,132	24,702	795,100
		Expectation.		Expectation.		Expectation.
1902	584,988	14,487,000	276,152	10,961,700	29,772	906,000

MANITOBA.

	Area, Acres.	Bushels.	Area, Acres.	Bushels.	Area, Acres.	Bushels.
1900	1,457,396	13,025,252	429,108	8,814,312	155,111	2,939,477
1901	2,011,835	50,502,085	689,951	27,796,588	191,009	6,536,155
		Expectation.		Expectation.		Expectation.
1902	2,039,940	51,207,590	725,000	29,211,050	329,790	11,285,114

It may be interesting to record here the following extract from an article entitled: 'A great undeveloped wheat country,' which appeared in the issue of September 6 last of the *Commercial West*, published at Minneapolis, Minn., and which is certainly an acknowledged authority in the matter:—

'If one can picture in his mind a sparsely-settled wonderfully fertile country 200 miles wide by 1,500 miles long, through which a great river flows, where wheat seems a natural crop, and other grains flourish, he can form some idea of what is known as the Saskatchewan valley, in the provinces of Assiniboia and Saskatchewan.

'Still the possibilities of such a vast area can be comprehended only by comparison. The cultivated area of Manitoba in 1901 was 2,500,000 acres. This is equivalent to a strip two miles wide by 200 miles in length—only about one-seven hundred and fiftieth the extent of the Saskatchewan country. On the 2,500,000 acres of cultivated land in Manitoba there was raised, in 1901, 50,500,000 bushels of wheat, 27,796,000 of

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oats, 6,536,000 of barley, and 266,400 of flax. The possibilities of the Saskatchewan valley are therefore practically limitless, as far as the raising of wheat is concerned. Under cultivation that territory would feed the world. As yet, however, only a small part of it is settled.

The following passage from the August issue of *The Field, Garden and Forest*, published at Brandon, Man., may also be quoted, as the figures which it contains regarding the extent of the wheat belt in the Canadian west give a fair idea as to the possibilities of the country:—

‘It has now been proved that so far as the soil is concerned, there is no appreciable part of the great area lying between the North Saskatchewan river and the international boundary which is unsuitable for the profitable growing of wheat. West of Moose Jaw the rainfall is in some districts light and uncertain. The irrigation systems which are being inaugurated will ensure abundant annual crops in those districts.

‘Leaving out of account the area between the North Saskatchewan and the head waters of the Churchill river, the Peace river district and the valleys of the Athabasca and the Upper Mackenzie rivers, all proved to produce wheat of the finest quality, but as yet too remote from the markets of the world to allow of wheat being produced for export, the area of Manitoba, Assiniboia, Alberta and Saskatchewan makes up a total of 242,168,000 acres, by far the greater portion of which is suitable for the production of wheat.

‘Taking only half of this area and allowing only ten bushels to the acre, the result would be over three-fifths of the world’s present consumption of wheat, which is in good round numbers two thousand million bushels. With good reason the people of Canada may declare confidently that with wheat as with forest products, “the future is with us.”’

TIMBER, GRAZING AND MINERAL LANDS.

The report of the chief clerk of this branch will be found under No. 18 of the Dominion lands division of the report.

The total revenue of the branch during the last fiscal year was \$963,921.77, as compared with \$1,332,860.91, being a decrease of \$368,939.14. As there was a total decrease of \$389,391.77 in the revenue on account of the Yukon Territory caused by the falling off in the collection of mining fees, Free Miners’ Certificates and royalty on gold, this leaves an increase of over \$20,000 in the revenue of the branch with regard to Manitoba, the North-west Territories and British Columbia.

TIMBER.

The total revenue on account of timber dues amounted to \$207,790.90, or a decrease of \$1,608.42, as compared with the previous year.

There were issued 398 licenses to cut timber over a total area of 4,370.54 square miles, as compared with 371 licenses and an area of 4,479.20 square miles during the year 1900-1.

The total revenue from timber in Manitoba, the North-west Territories, British Columbia and the Yukon Territory up to July, 1902, was \$2,268,789.84. The total revenue from timber within the railway belt in British Columbia up to the same date

was \$476,440.63; in Manitoba and the North-west Territories \$1,541,525.31, and in the Yukon Territory \$250,825.20. The output of lumber manufactured in Manitoba during the past year under government license was 24,290,869 feet B.M., as compared with 23,532,300 feet B.M., during the previous year, or an increase of 758,569 feet. The total quantity of lumber disposed of, principally in Manitoba, is given by the Crown timber agent at Winnipeg as being 165,512,783 feet B.M., as compared with 150,532,300 feet the previous year.

The output of manufactured lumber in the North-west Territories was 16,418,160 feet B.M., as compared with 16,129,189 B.M., during the previous year; in the railway belt in British Columbia the output was 33,363,844 feet B.M., being an increase of 486,628 over the previous year, and for the Yukon Territory it was 7,936,505 feet B.M. The total output of manufactured lumber by mills operating under licenses of the department was 82,009,378 feet, as compared with 78,773,422 for the preceding year.

A list of the timber berths granted during the year, giving names of licensees, appears in the report of the chief clerk of the Timber and Mines branch.

The following are the principal changes that have been made in the regulations since my last report:—

An order in council was passed on July 30, 1901, providing that all timber cut on berths in the railway belt in the province of British Columbia shall be manufactured within the limits of the Dominion.

An order was also passed on September 24, 1901, abolishing the rebate of 40 cents per thousand feet B.M., previously allowed on all lumber exported from British Columbia to places outside of the Dominion of Canada.

By order in council of April 8, 1902, it is provided that owners of steamboats plying on waters within the boundaries of Manitoba, the North-west Territories and the railway belt in the province of British Columbia may be granted permits to cut timber for consumption on their boats without competition.

Previous to April 8, 1902, the regulations provided that a homesteader might acquire a free permit to cut 3,000 lineal feet of lumber for his own use on his homestead or 6,750 feet of lumber B.M. As, however, it was found that 3,000 lineal feet of average sized timber would manufacture more than the quantity mentioned, an order in council was passed on the above date changing the regulations so as to provide that the quantity of lumber to be manufactured under the permit shall not exceed a maximum of 9,250 feet.

GRAZING AND STOCK RAISING.

There were 269 grazing leases issued during the year, as compared with 241 for 1900-1. The total number of ranches comprising Dominion lands at present cover an area of 1,272,849.66 acres, which shows an increase of 667,054.91 acres over the preceding year.

There were 155 leases of school lands for grazing purposes issued during the year, 35 of which were for lands in Manitoba, and 120 for lands in the North-west Territories.

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HAY.

There were 3,203 permits to cut hay issued during the past year, exclusive of school lands, and the sum of \$5,430.56 was received, as compared with 3,171 permits during the previous year, and a revenue of \$17,500.75, including school lands.

HAY AND GRAZING REGULATIONS, YUKON TERRITORY.

By an order in council dated April 8, 1902, the fee for a hay permit was reduced from \$2.50 to \$2, and the dues on hay cut under such permit were reduced from \$3 to \$1 per ton. Section 14 of the regulations, which provided for a charge of five cents per day for cattle grazing on public lands while being driven through the territory, was rescinded by the same order.

MINERAL OTHER THAN COAL.

There were 47 entries granted for mining locations by the agents of Dominion lands in Manitoba and the North-west Territories, as compared with 46 entries during the previous year; in the Yukon Territory there were 1,178 entries for quartz locations recorded, as compared with 1,150 in 1900-1.

The returns for the last fiscal year show that 4,354 placer claim entries were granted as compared with 4,424 for the previous year. Although this statement shows a slight decrease, it is, nevertheless, very encouraging as it is yet largely in excess of the figures for the year 1899-1900, and would seem to indicate that successful prospecting is actively being prosecuted in the Yukon gold fields. Seven thousand seven hundred and seven renewals and relocations were made during the year, as compared with 6,291 in 1900-1.

The revenue collected from placer and quartz entries, renewals and locations, and for registration of assignments and other documents in connection with mining operations, amounted to \$256,256.10, or a decrease of \$92,402.20, as compared with the previous year.

Up to July, 1902, 28,878 placer claims, 3,971 quartz claims, 24,280 renewals and relocations were recorded; and 68,755 Free Miners' Certificates were issued, producing a revenue of \$714,480.84. During the year ending June 30 last, 9,304 Free Miners' Certificates were issued, and the revenue derived therefrom was \$118,312.02.

The total sum collected up to July, 1902, for royalty on the gross output of placer claims in the Yukon Territory, after deducting the exemption allowed by the regulations, was \$2,524,177.45; of this amount the sum of \$331,532.04 was collected during the past fiscal year. A statement showing the royalty received, the places where the same was collected, and the names of the creeks, gulches and hills on which the gold was taken, will be found in the report of the Timber and Mines branch of the department.

Leases ~~now in force~~ to dredge for minerals in the submerged beds of rivers in the Yukon Territory cover 257.50 miles, and for the same purpose in the North-west Territories cover 906 miles.

The total revenue received for dredging leases in the Yukon Territory up to July 1, 1902, was \$144,010.50, and for the fiscal year, \$4,355. The total revenue for the rent of the leaseholds in the North-west Territories up to July 1, 1902, was \$23,376.81, and for the past fiscal year \$3,114.10.

PLACER MINING REGULATIONS, YUKON TERRITORY.

By an order in council dated November 27, 1901, section 38 of the Placer Mining Regulations was amended by providing that assignments be registered in duplicate, and one of the copies thereof returned to the assignee with a certificate of registration endorsed thereon. This order in council rendered Form 'J' of the regulations unnecessary.

Sub-clause (d) of section 41 of the regulations was amended by order in council dated April 15 last, by providing that a certificate of partnership may apply to any number of claims upon the favourable report of the Commissioner of the Territory.

By an order in council, dated May 19 last, the provision made in section 7 of the regulations, whereby each person in the employment of an individual or company holding placer mining property in the Yukon Territory, except house servants, should be a free miner, was rescinded.

By order in council, dated May 21 last, provision was made that royalty at the rate of two and one-half per cent of the value of the gold shipped from the Yukon Territory shall be paid to the comptroller instead of the royalty heretofore collected; the gold for the purpose of estimating the royalty to be valued at \$15 an ounce.

Fees for obtaining verbal or written information, and for obtaining copies of documents from the Mining Recorder were established by order in council, dated May 31, 1902.

By order in council, dated May 31 last, provision was also made that if a claim is not re-recorded within three months from the date up to which it was recorded it shall be deemed to be abandoned, even although the work has been done or the fee paid.

By an order in council, dated May 31 last, the fee for the registration of assignments containing one mining claim was fixed at \$2, and for each additional claim or fraction of a claim mentioned in the instrument an additional fee of \$1 is charged.

COAL MINING LAND.

There were 978 applications received for coal locations during the year, or an increase of 118 over the preceding year, and the revenue in this relation was \$16,270.32. The total area of coal land sold up to July 1, 1902, was 37,300.80 acres, and the total amount received therefor was \$283,113.32.

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COAL MINING REGULATIONS.

By an order in council, dated May 19, 1902, the regulations governing coal mining in Manitoba, the North-west Territories and British Columbia were amended by eliminating the portions thereof which provide for the granting of permits to prospect for coal on vacant lands of the Crown. Provision was also made that a fee of \$5 shall accompany each application to purchase coal mining lands.

The regulations for the issue of licenses to mine for coal in the Rocky Mountains Park of Canada were rescinded by order in council, dated June 12, 1902, and others substituted therefor. The new regulations provide that not more than 640 acres, and not less than 160 acres of coal mining lands may be leased to one applicant, at an annual rental of thirty cents an acre, and a royalty of ten cents per ton on the coal taken out.

HYDRAULIC MINING REGULATIONS, YUKON TERRITORY.

By an order in council, dated May 19, 1902, provision was made that all applications for leases for hydraulic mining purposes in the Yukon Territory shall be filed with the Commissioner; that no lease shall be issued unless recommended by him; and that no exemption shall be allowed on the output of hydraulic mining locations.

REGULATIONS GOVERNING THE ADMINISTRATION OF DOMINION LANDS, OTHER THAN COAL LANDS, IN THE YUKON TERRITORY.

The regulations governing the administration of Dominion lands in the Yukon Territory, other than coal lands, were amended by order in council, dated April 8, 1902, so as to empower the Commissioner of the Territory to dispose of lands at a price varying from \$1 to \$10 an acre, the maximum area to be sold to one applicant in the same locality not to exceed 160 acres. Provision was also made that the applicant should not be required to deposit a survey fee of \$100, but to have a survey made if he desired to obtain a patent for the land or transfer his interest therein.

WATER RIGHTS IN THE YUKON TERRITORY.

By an order in council, dated December 17, 1901, section 10 of the regulations, for the disposal of the right to divert water in the Yukon Territory, which provided for the sale of water by the grantees thereof, was rescinded, and Form 'N' in the schedule was amended accordingly.

Section 12 of the regulations, which provided for the measurement of the water, was rescinded by order in council, dated May 19, 1902, and another definition of the miners' inch was substituted therefor.

HEARING THE DECISION OF DISPUTE.

By an order in council, dated January 30 last, the rules regulating the practice and proceedings in the Gold Commissioner's appeal court, established by section 12 of an ordinance governing the hearing and decision of dispute, were confirmed.

The Mining Recorder or the Gold Commissioner was authorized by order in council, dated June 4 last, to employ a Dominion land surveyor to measure or survey claims in dispute.

IRRIGATION AND CANADIAN IRRIGATION SURVEYS, JULY, 1901, TO JUNE, 1902.

During the early portion of the irrigation season of 1902 the whole of the Territories was visited with unprecedented rainfall in so far as the meteorological records show, and especially was this the case in Western Assiniboia and Southern Alberta, and as a result there has been no need of the artificial application of water to ensure crops in those portions of the Territories this year. But for all this there has been a large number of applications for water rights and inquiries as to the procedure to obtain such rights, showing that the principle of irrigation is fully recognized, and that people well acquainted with the results to be obtained therefrom are anxious to be ready for a dry cycle of years when it comes again. Especially has this been the case with new settlers in the Cypress Hills section of the country.

That our laws in Canada with respect to irrigation are recognized to be established on a firm basis it is only necessary to quote the following from Bulletin No. 100, of the United States Department of Agriculture, being report of irrigation investigations in California under the direction of Mr. Elwood Mead, expert in charge. On page 57, this bulletin reads as follows:—

‘Another irrigation law worthy of the study of the people of California is the North-west Irrigation Act of the Dominion of Canada. In its administrative methods it is the most complete and effective irrigation code yet enacted on this continent. A brief reference to this law is made in Bulletin No. 58, Office of Experiment Stations, but this has proven insufficient to a full understanding of its provisions, and a more complete discussion is presented in Bulletin No. 96.’

In connection with the Springbank irrigation district canal good progress was made in the construction of this work during the latter part of the summer and fall of 1901 under the supervision of the Irrigation Branch notwithstanding the unfavourable weather. The headworks, including headgates, spillway and flume over Jumping Pound Creek, were completed, and they have withstood the severe test of the heavy floods of May and June of this year. The importance and necessity of this undertaking will scarcely be properly recognized until a dry cycle strikes the country again.

As referred to in the last synopsis for the departmental report of 1900-1, an irrigation canal heading in Milk River was located, and the feasibility of utilizing all the water that could be taken from this stream was fully demonstrated. Since then a record has been made against Milk River under the provisions of sections 44 and 45 of the Canadian North-west Irrigation Act, 1898, for 500 cubic feet per second during its low water stage, and 1,500 cubic feet per second during the high water stage of this stream.

At the present time two parties are working in the field in connection with irrigation development, one is continuing the general topographical surveys east of Calgary

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in the townships north and along the main line of the Canadian Pacific Railway, and has been out since early in May. The other party is engaged in gauging streams and inspecting existing irrigation works, and has a very comprehensive field of investigation so as to bring the information relative to the discharge of all rivers and smaller streams in Alberta and Western Assiniboia down to date, and for a comparison with the results of former investigations, while actual inspections of existing works will give the department a better knowledge of what is being done by the users of water as an aid to the growing of crops.

The government of the North-west Territories has undertaken the construction of a large number of drains in northern Alberta and central Saskatchewan where the successful cultivation of the land and the making of good roads can only be accomplished through efficient drainage. As required by the Territorial Public Works Ordinance these works will be brought under the Irrigation Act. This drainage work will doubtless become more extensive in coming years, judging from the numerous requests made from time to time to provide relief from the large quantity of water which has accumulated during the four past rainy seasons.

In Southern Alberta along the line of the Canadian North-west Irrigation Company's canal the influx of population still continues, due largely to the incentive produced by the construction of this work, although there has not been very much need of irrigation during the past two seasons.

The construction of the Bow River irrigation canal will no doubt have a similar effect along the line of the Canadian Pacific Railway between Medicine Hat and Calgary, and render a hitherto comparatively unproductive section of the country populous and productive.

Hydrographic records are still being kept of the discharge of rivers and other streams in Southern Alberta and Western Assiniboia as heretofore. In addition a gauge rod has been placed on Milk River at the crossing of the Alberta Railway and Coal Company's line.

It is proposed that additional streams be included in the records of the coming year, among which will be the Kananaskis, Oldman (above the junction of its main tributaries), Crownest, South Fork, Waterton and Belly (upper portion) rivers, as well as a number of smaller streams.

Discharge sheets of all the streams having records to the end of the season of 1901 have been prepared, and illustrate the relative rise and fall during the whole period over which records have been kept.

The present standing of irrigation in the Territories can be readily seen by a glance at the following table:—

Total number of applications for water rights recorded	372
Number of applications recorded from July 1, 1901, to June 30,	
1902,	19
Number of applications cancelled	11

Number of final licenses issued from July 1, 1901, to June 30, 1902	28
Number of final licenses transferred.	3
Total number of agreements for supply and use of water filed. .	224
Number of above agreements filed from July 1, 1901, to June 30, 1902	173
Total number of agreements granting right of way for irrigation works filed.	42
Number of above agreements filed from July 1, 1901, to June 30, 1902	3
Total number of transfers of applications filed	12
Number of above transfers filed from July 1, 1901, to June 30, 1902	5
Total number of gauge rod, nilometer and hydrograph records received and recorded from July 1, 1901, to June 30, 1902. .	167
Number of inquiries made respecting results obtained by irrigation	200
Number of replies to above inquiries received.	115
Correspondence from July 1, 1901, to June 30, 1902—	
Letters received.	1,545
Letters sent.	1,655

The data, including several large maps, diagrams showing the rise and fall of streams, diagrams of reservoir sites, and schedules showing the monthly maximum, minimum and mean temperatures of a number of important points in the Territories since records have been kept, as well as the monthly precipitation of moisture at those points and the results of evaporation tests, the discharge of streams, and the elevation of a large number of prominent points throughout the Territories are now prepared and ready for the fifth general report on irrigation and irrigation surveys which it is proposed to issue in monograph form for general distribution. It was intended that this report would be issued early in the year, but delays have occurred owing to the lack of data which was not obtainable until quite recently. This report will be issued more as a hand-book of information regarding the subject of irrigation than as a purely technical report, and in this form will certainly be of more value to the people who are interested in this subject from a practical standpoint.

DOMINION LANDS SURVEYS.

The report of the Surveyor General upon the operation of his branch during the past year, will be found under Part III. of the general report.

During the half year extending from July 1, to December 31, 1901, there were thirty-six survey parties in the field. Of these six were employed in Manitoba, twenty-six in the Territories, three in British Columbia, and one on the boundary between British Columbia and the Yukon. In addition to these a number of parties were working in the Yukon Territory under the direction of the Commissioner.

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This season there are again thirty-six parties at work, seven of them in Manitoba, twenty-six in the Territories, and three in British Columbia. Eighteen of the parties are engaged in subdivision surveys under contract, this being a much larger number than for some years past.

Hereunder will be found the usual table of subdivision or settlement survey work completed each year since the commencement of the surveys, with the result of last season's operations added.

	Acres.	Number of Farms of 160 acres each.		Acres.	Number of Farms of 160 acres each.
Previous to June, 1873.	4,792,292	29,952	In 1889	516,968	3,231
In 1874	1,237,864	26,487	1890	817,075	5,106
1875	665,000	4,156	1891	76,560	476
1876	420,507	2,624	1892	1,395,200	8,720
1877	231,691	1,448	1893	2,928,640	18,304
1878	396,936	1,918	1894	390,240	1,876
1879	1,139,482	7,065	1895	406,240	2,539
1880	4,472,000	27,950	1896	596,560	3,166
1881	8,147,000	50,919	1897	428,640	2,679
1882	10,186,000	63,662	1898	851,840	5,374
1883	27,234,000	170,212	1899	1,022,720	6,392
1884	6,435,000	40,218	1900	775,480	4,596
1885	391,680	2,448	1901	1,603,680	10,023
1886	1,379,010	8,620	1902	2,533,120	15,957
1887	643,710	4,023			
1888	1,131,840	7,074	Total	85,935,975	537,220

INTERNATIONAL BOUNDARY SURVEYS AND OPERATIONS OF THE ASTRONOMICAL BRANCH.

In previous reports I have made mention of the negotiations with the United States for the renewal of the monuments which mark the southern boundary of Canada. As regards that part of the boundary which extends from the Richelieu river to the St. Lawrence, separating the state of New York from the province of Quebec, and which had been the subject of correspondence with the state engineer and surveyor of New York, an agreement for a re-survey and the placing of new monuments was reached with the United States in the autumn of 1901, the work to be carried on by the state of New York and Canada jointly, each paying one-half of the expense. Mr. W. F. King, Chief Astronomer of this department, was appointed Canadian Commissioner to co-operate with the Hon. Edward A. Bond, State Engineer and Surveyor of New York. Mr. C. A. Bigger, D.L.S., of Ottawa, and Mr. H. P. Willis, C.E., of Albany, were delegated by the commissioners as their field engineers.

A preliminary examination of the line was made by Messrs. Bigger and Willis in October and November. As a result of the investigation, it was thought advisable by the commissioners to replace all the old monuments by new ones, and to make a complete re-survey of the line.

This work has been carried out during the present season. The new monuments are of granite, six feet long, twelve inches square at the base, and slightly tapering to

the top. They are set in heavy masses of concrete. The old monuments which these replace were of cast iron, hollow, and set on cedar posts. It is believed that the new monuments will be less subject to breakage, upheaval, &c., than the old.

A brief historical sketch of this line may not be out of place here. After the war of the revolution, by the Treaty of 1783, the boundary line of the United States in this region was defined as following the 45th parallel. The Treaty of Ghent, 1814, provided for the appointment of commissioners to survey and mark out the boundary line from the source of the St. Croix river to the St. Lawrence. Surveys were made under this commission, but the wide disparity of view as to the proper course of the eastern part of the line, especially along the 'Highlands,' prevented an agreement as to the marking of any part of it. These surveys developed the fact that the 45th parallel, which had been surveyed as such by Valentine and Collins, between the years 1771 and 1774, to form the boundary between the then colony of New York and Canada, was, in many places, a long way from its proper position. Thus was added another cause of difference to those already existing farther east.

The commissioners under the Treaty of Ghent failing to agree, the question was referred, in 1827, to the King of the Netherlands as arbitrator. His award was unsatisfactory, however, and the course of the boundary from the St. Croix to the St. Lawrence remained undetermined until the treaty of August 9, 1842, commonly known as the Ashburton-Webster Treaty, by which the whole question was settled. By this treaty the Valentine and Collins line was adopted from the Connecticut river to the St. Lawrence. This line was re-surveyed by the boundary commissioners, Lt.-Col. Estcourt and Mr. Albert Smith, in 1845, and the iron monuments above mentioned were planted.

It may be remarked that the condition in which the iron monuments which have just been replaced were found indicate the desirability of a like renewal at an early date along the 'Ashburton' line to the eastward, which was marked at about the same time with similar monuments.

As regards the 49th parallel (southern boundary of British Columbia) from the Rocky Mountains to the sea, an examination of the marks along which was carried on last year under an informal agreement with the United States government, investigation has resulted in a modification of the view, previously expressed, that a re-survey of this line and renewal of the monuments could not properly be carried out except under a special convention. The United States has formally agreed that such re-survey and renewal shall be gone on with. Mr. W. F. King has been appointed by the British government as their representative on the commission, while Mr. Otto H. Tittmann, Superintendent of the United States Coast and Geodetic Survey, will represent the United States.

Mr. W. F. O'Hara, D.L.S., who was engaged last year on the above examination, has continued on the same line during the present season. His work consisted in opening lines to connect the old monuments, and in making a topographical survey of the region adjacent to the parallel. This work, as well as that done last year by him and Mr. McArthur, will be of direct utility in connection with the future operations of the commission.

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Mr. J. M. Macoun and Dr. R. A. Daly, of the Geological Survey Department, accompanied Mr. O'Hara as biologist and geologist respectively.

Mr. J. J. McArthur, D.L.S., who was engaged last year in the examination and partial re-survey of the 49th parallel in and west of the Cascade range, in the present summer cut out that line across the peninsula of Point Roberts. The vista cut out through the forest will be visible for a long distance out in the straits, thereby affording a definite boundary mark.

Later in the season Mr. McArthur proceeded to the Yukon district, where he conducted a photo-topographic survey to the west of the Yukon river southward from Sixty-Mile Creek, in the neighbourhood of the 141st meridian. He reports the country near the meridian much broken by deep valleys, which are generally thickly wooded. His survey covers about 3,000 square miles.

Little astronomical field work has been done during the present season, owing, in part, to the prevalence of unfavourable weather, but mainly to the pressure of work on the boundary surveys. The determination of latitudes and longitudes at certain points along the River St. Lawrence was asked for in the spring on behalf of the Department of Public Works, in connection with the river survey. The longitude of Three Rivers has been determined, but it has not been found possible as yet to take the required observations at the other points. The latitude and longitude of White river, Ontario, was asked for last year by the Ontario government, to afford a reference point for the survey of the meridian of $85^{\circ} 20'$, which forms the boundary line between the districts of Algoma and Thunder Bay. A request that this determination should be made was also received from the Algoma Commercial Company. An astronomical station near White River station was occupied late in the autumn of 1901, but it was thought inadvisable to complete the observations on account of the cold weather. They have been finished this summer.

The half-seconds pendulum apparatus ordered last year from Fauth & Co., of Washington, has been received. Mr. Klotz has taken observations with this apparatus at Washington and Ottawa. Ottawa is thus connected with the international series of gravity stations, and will serve as a basal station for Canadian points. He has also observed at Toronto and Montreal.

Preparations are being made for the installation of a number of electrical clocks, to furnish accurate time in the departmental buildings in Ottawa.

The contract for the new astronomical observatory building has been let, and construction is going on. The fifteen-inch equatorial instrument for the observatory is reported to be near completion.

THE YUKON TERRITORY.

The report of the Commissioner of the Yukon Territory for the financial year ending June 30, 1902, will be found under Part VII. of the general report. The Commissioner's review of the work accomplished at the different offices under his supervision

is very satisfactory, and his remarks as to the general condition of the Territory and its future prospects will not fail to be read with much interest.

I may say that as a result of my personal observation of matters generally during my recent visit of inspection to the Yukon Territory, I fully concur in the Commissioner's opinion as to the permanency of the country as a mining district.

The days of inflation and extravagant prices would appear to be past, and the district may now be said to have entered upon an era of steady progress and stable improvement. The mineral resources of the Territory, far from showing signs of exhaustion, are only now beginning to be understood, and those who have given them careful study, backed by experience in other gold fields, pronounce them to be practically inexhaustible. A mining engineer of wide experience, who recently visited the country, expressed the opinion that the Yukon gold fields equalled in richness and permanency anything which he had seen in all his experience, including South Africa, Australia, Siberia and California. He had made an elaborate examination of the country, and declared that everywhere on river, creek and bench gold was to be found in paying quantities; that gravel benches on the Yukon river, which have not been seriously worked, contained from 25 to 50 cents per cubic yard of dirt, a very large percentage compared with California and other gravels, some of which have been worked at a profit where but three cents to the yard was recovered, and that many of the old creeks and river channels are even far richer and would yield much higher. As their extent is enormous, it is impossible to place an estimate upon the value of the territory as a field for hydraulic mining, which is destined to become the principal industry.

During my sojourn in the inside I spent a few days in visiting the creeks and had an opportunity of seeing the miner at work, and, from my observation, I have no hesitation in expressing the belief that mining in the Yukon is only in its preliminary stages. That many of the larger mines have not lately been as profitable as formerly is due, in my opinion, to the fact that a few of the richest claims have been worked very vigorously and possibly the best paying portions have been worked out. There are, I fully believe, more actual miners working on their claims to-day than at any previous time, and, from what I can gather, there are still immense tracts of country lying in the Klondike district, which have not yet been thoroughly prospected. There is no doubt that, with the improved machinery which is being brought in, ground which has hitherto been considered of little value will be profitably worked. As a matter of fact, on many of the claims, the tailings of former years have been profitably worked over.

GOLD OUTPUT.

It may be stated in this relation that the estimates of former years would appear to have been misleading, as they had been based more upon hearsay than actual facts, and were more or less extravagant. Now that the collection of royalty has been reduced to a system, it is much easier to make a correct estimate of each season's output, and I am inclined to think that this year's will reach from \$12,000,000 to \$13,000,000. I base this statement on the fact that royalties had been collected since May 1 on

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\$9,000,000, and as the clean-up is still in progress, the other \$3,000,000 or \$4,000,000 will be forthcoming before the close of the season.

PLACER MINING.

I found that the persons holding the larger claims, known as hydraulic concessions, are at present very few in number. A great many of the larger leaseholds have been cancelled owing to the failure of the lessees to comply with the conditions. In fact, a number of hydraulic concessions have been in the last few months thrown open to placer miners and a great many claims have been taken up. It might be mentioned in this connection that a great deal of the land taken up for hydraulic mining was formerly covered by placer claims which were abandoned as not sufficiently rich to pay for working, but which have been found profitable since the introduction of better methods and improved machinery.

I was very much pleased to see such a large number of small miners at work along the creeks, and to know that their labours were being rewarded by satisfactory returns. It is undoubtedly in the interest of the country generally to have the mining industry carried on by a large number of small miners working claims for themselves and securing a good average return, rather than to have it in the hands of a few rich miners or corporations as it is, in my opinion, these small miners who will give permanency to the placer camp. While there appears to have been prospecting at some time or other all along the creeks that I visited, and also on some of the hills, yet when one takes into consideration the area that is supposed to be gold bearing, the prospecting that has been done is certainly very meagre in area, even with the creeks in the Dawson district. From what I could gather, there is actually at present a larger number of miners working claims than at any time in the past, although perhaps not employing such a large amount of labour.

QUARTZ MINING.

The discovery and development of quartz mines in various parts of the country will assuredly add much to the permanency of the mining industry, and in view of recent developments in this respect the government would doubtless be justified in taking the proper measures to lend assistance. Indeed, this has already been begun by the letting of a contract for the erection of a quartz mill and assay office at Dawson, at which miners can have tests made at a most reasonable cost under the supervision of a reliable and competent government officer. The purchase of drills for prospecting purposes is also a matter worthy of consideration, as it would result beneficially both to the district and the miners generally.

I think it would be interesting to place on record here the following remarks made by Mr. S. Morley Wickett in the very able and interesting article upon the Yukon trade which appeared in the issue of October 3 last, of *Industrial Canada*, as the opinion of one who is so well qualified to speak upon the subject in question will commend itself to all those who take an interest in the welfare and development of the Yukon Territory:—

'The gold production of the Klondike, according to estimates in our geological reports, as reproduced in the Statistical Year-book for 1901, has been as follows:—

'1885-1896 (12 years' average)	\$ 128,200 00
1897	2,500,000 00
1898	10,000,000 00
1899	16,000,000 00
1900	22,275,000 00
1901	18,000,000 00

'And for the present year the probable output has been placed at \$12,000,000. This makes to date a total of \$80,000,000. With such figures the land of "infinite possibilities" of yesterday has become an industrial fact worthy of consideration at the hands of business men.

'The chief query to-day, with regard to the camp, is whether the supply of gold is likely to shrink rapidly; whether the deposits are already becoming exhausted. A month's visit to the country will convince, I think, the observant, open-minded traveller that the gold bearing sands are of immense area; that though the output may fluctuate, and even at times fall much lower than this year, the camp will remain an important one for many years—how long, no one can say. Its life depends on too many contingencies for any one to place a limit. All that we need say now is that the camp is too important and too promising for Canadians to neglect. Productivity, moreover, must always be estimated in comparison with costs. The cost of mining in the Yukon has fallen fully 50 per cent since 1899; next year it will be lower still.

'It is always dangerous to accept frankly the judgment of a mining camp concerning itself. But it is almost convincing to note the unanimity of opinion of miners, merchants and bankers with regard to Yukon possibilities.'

GOVERNMENT OFFICES.

I may say that while at Dawson my time was fully occupied in examining into the condition of the government offices, as well as deciding a great many matters that were awaiting my consideration. Generally speaking, I found the offices in a very satisfactory condition. I succeeded in effecting a number of improvements by making some rearrangements and adopting new methods in connection with certain phases of the service which will have a beneficial result. I devoted considerable time to the reorganization of the service of the local government, and hope that my efforts in this connection will enable the local administration to discharge its work with even greater satisfaction than formerly.

DAWSON.

Dawson is a much better built town than one would expect to find at such a distant part of the Dominion, and when its short existence is taken into consideration, the citizens have done remarkably well in the way of improvements. The streets and sidewalks are really much better than one could expect to find in a place only three or four years old. The great need which exists, however, is proper drainage. It is difficult to determine, without expert knowledge, what class of sewers could with safety be installed to meet the requirements of the city in this regard, but there would no doubt appear to be some means that could be devised whereby proper drainage could be secured. The good health of the community demands that up-to-date sanitary measures should be adopted without delay in this regard.

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YUKON ROADS.

The construction of government roads has been the cause of little villages springing up on the creeks where the miners can purchase their supplies without making the long journey to Dawson. These roads are equally as good as any in Manitoba could be, and have reduced the cost of transportation very largely. This has resulted in making possible the working of many claims that would not stand heavy operating expenses. I was informed by freighters that the cost of transportation had been reduced from 40 and 60 cents to $1\frac{1}{2}$ and 2 cents per pound for short hauls, and from \$1.25 to $3\frac{1}{2}$ cents for longer hauls.

The winter road which the government has built from White Horse to Dawson has shortened the distance by 120 miles. The White Pass and Yukon Railway Company, who have the mail contract, have built a number of road houses along the route. The delay of weeks in getting into Dawson during the freeze-up in the fall and the break-up in the spring is consequently a thing of the past.

NEW APPOINTMENTS.

Mr. W. W. Cory, of Winnipeg, Man., was appointed inspector of the Yukon Territory on July 1, 1901. It was considered necessary to establish this office in the interest of the service, as it is important in view of the general supervision exercised by the department in the matter of carrying out the various regulations that a special officer should be in a position to advise headquarters as to the operations of the different offices and requirements of the same.

Mr. H. W. Newlands, who was formerly inspector of land titles offices for the North-west Territories, was appointed legal adviser of the Yukon Territory and a member of the Yukon council on September 14, 1901. Mr. Newlands, who is a barrister at law, has had considerable experience in legal matters during his incumbency of the office of inspector of land titles offices.

Mr. W. G. Haultain, who is also a barrister at law, was recently appointed deputy registrar at Dawson.

WHITE HORSE COPPER MINES.

While at White Horse I took occasion to visit a few of the copper claims in the vicinity, and from what I saw I am fully satisfied as to the richness of the ore and the extent of the area bearing the same. The importance of the development of these mines cannot be overestimated in the interest of the district. I must say in this relation that I can hardly understand the attitude of the railway company in not fixing a low enough rate to admit of the ore being sent outside for treatment, as it certainly would seem to any disinterested person that the company were standing in their own light in not doing their part in the development of the district, and at the same time furnishing freight where their cars are now being hauled over the road empty. I am of opinion that it would be good policy for the company to grant such rates as would

encourage further prospecting and enable those who now hold claims to work their properties on a larger scale.

White Horse is the best town site that I have seen in the younger portions of Canada, and I am fully convinced that, with the development of the natural resources of the district, the town is destined to become a very important centre.

DOMINION OF CANADA ASSAY OFFICE.

The report of the Superintendent of Mines upon the operations of his office will be found under Part VI. of the general report. It deals fully with the establishment of the Dominion of Canada assay office at Vancouver. The result attending the work of the office so far would appear to be most satisfactory, and from the returns submitted by the superintendent it is gratifying to note that the institution is meeting with popular favour and is likely to fully answer the purpose for which it was intended, namely, the assaying in Canada of gold and silver ores taken from Canadian soil, and thus doing away with the necessity for the miner, as heretofore, going outside of the country to have that done.

From the superintendent's remarks it will be observed that the office has been established and is being operated on strictly business principles. The cost of maintenance, as the work increases, will, as a matter of course, be minimized.

There is no doubt that the establishment of this office by the government has filled a long felt want, and judging from the results obtained during the first few months of its existence, there is every reason to believe that miners of British Columbia and the Yukon and the North-west Territories will in time more fully avail themselves of the advantage afforded of having their gold assayed through the agency of a purely Canadian institution, thus saving time and money in realizing upon their earnings.

FORESTRY.

The report of the Superintendent of Forestry will be found under Part IX. of the general report.

As will be observed from the results obtained, the work of this important branch of the department has on the whole been most satisfactory. When it is considered that with the limited staff at headquarters and the comparatively small expenditure involved in carrying out the present system of tree planting and forest protection, it has been found possible to greatly minimize the destruction of forests in Manitoba and the North-west Territories, and at the same time demonstrate by actual results the practicability of tree planting over the western plains, it is unfortunate in the interests of the agricultural and manufacturing interests of the country that steps in this direction were not taken many years ago.

It may be interesting to note that as far back as 1875 the Hon. David Laird, then Minister of the Interior, caused an inquiry to be made into the subject of forestry, and the result of the work that was done at the time is

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embodied in the annual report of the department for that year. Although the importance of the subject would appear to have been fully felt at that time, no steps were taken towards devising any practical methods for protecting the timber areas under the control of the Dominion. Ten years later, namely, in 1884, another attempt was made to deal with the subject. This time Mr. H. J. Morgan was commissioned by the government to prepare a report upon the subject of the protection of the present forests of the Dominion and the planting of forest trees. A summary of his preliminary report is embodied in the annual report of the department for the year 1884. Mr. Morgan dealt fully with the subject, and in concluding his report made a strong appeal for the adoption of immediate measures to arrest the further destruction of our remaining forests, except under some very improved supervision, and for the adoption of a system of forest plantation for the great prairie region in our North-west. This second step was, however, like the first, without any practical result, and it was only fifteen years afterwards that the matter was again taken up. This time, however, there is every reason to believe that the importance of the subject will not be again lost sight of, as this branch of the service is now in full operation, and its work meeting with even more success than was at first anticipated.

The superintendent's report will no doubt again this year be read with much interest, as it contains many valuable suggestions on the subject with which it deals, and covers full details as to the work performed, the results obtained, and what it is proposed to do to further extend the operations of the branch. That the co-operation system in force for the planting of trees is meeting with popular favour is demonstrated by the increased demand for seedlings, and there is every reason to believe that the unquestionable success of those who have already planted trees on their farms, under the supervision of the forestry office, will move many others to make the same experiment. In fact, under all circumstances, I think one would be quite justified in predicting that at a comparatively early date the great majority of settlers in Manitoba, the North-west Territories and in British Columbia will realize the great advantage to be derived from the planting of trees on their lands, and that as a result of the beneficial influence exercised by the Forestry Association of Canada, to which reference is also made by the superintendent in his report, measures will be adopted by the government of the different provinces interested for the more rigorous enforcement of the laws respecting the protection of forests, as such a step would not fail to promote the productive resources of the country at large.

ROCKY MOUNTAINS PARK OF CANADA.

Under Part V. will be found the report of the superintendent upon the condition of affairs in the Rocky Mountains park during the year ended June 30 last. This report is very encouraging, as it shows clearly that the park is gaining steadily in popular favour as a national resort for tourists and health seekers.

There has again been an increase in the number of persons who visited the park during the past season, as the following table will show:—

1898	5,537
1899	7,387
1900 (ten months).....	6,533
1901	8,156
1902	9,473

Much progress would appear to have been made in the way of opening up new paths and making needful repairs to old roads in the park leading to points in the mountains which command attractive views of the surrounding country. As the scenery in the park is one of the chief features which interest visitors, it is of the utmost importance that the roads, both for pedestrians and wagons, should be put in as good order as possible. As will be seen from the superintendent's report, considerable work was done in that direction during the past season, and he suggests that new roads be opened up in other directions.

Similarly with last year, it is worth noting that there were no fires nor extensive damages caused by floods within the limits of the park during the past year, although some of the roads were damaged by the continuous rains of last spring.

The management of the park is to be congratulated on the continued success attending the efforts which have been made within the last three or four years to establish an animal preserve there. That the experiment is proving a success is quite apparent from the fact that there has been an increase of from 56 to 70 in the number of animals during the year, and that the various specimens are in excellent condition.

The superintendent's report on the whole, although not of an extensive nature, is a very interesting one, and it is gratifying to know that the administration of the park is being carefully and successfully attended to.

SCHOOL LANDS.

The report of Mr. Frank S. Checkley, the clerk in charge of the school lands branch, will be found under No. 27 of the Lands Division of the general report.

There were no general sales of school lands held during the year.

Statements of the revenue and expenditure in connection with the position of the fund on June 30 last will be found annexed to the report.

As mentioned by Mr. Checkley, an order in council was passed on June 11 last, authorizing the payment to the province of Manitoba of all moneys collected by the Dominion government on account of Manitoba school lands, exclusive of the principal moneys of sales, and the sum of \$224,114.76 was accordingly paid to the provincial government on June 30 last. This action was taken at the request of the provincial authorities, and upon the advice of the law officers of the Crown that the province is entitled to be paid the moneys above mentioned.

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THE DISTRICT OF KEEWATIN.

The report of His Honour Lieutenant Governor McMillan upon affairs in the district of Keewatin, will be found under Part VIII. of the general report.

It is satisfactory to note that the past season has been a very successful one in the fishing industry, which is now being extensively pursued in that region, and that in consequence the native population have enjoyed a great measure of comfort and plenty during the year.

Attention is also called to the fact that the district has been comparatively free from epidemic diseases or serious crimes during the past season. As pointed out by His Honour, it certainly speaks very highly for the peaceable character of the Indians and the wholesome influence exercised by the missionaries that during a whole year no crime beyond the jurisdiction of the local magistrate has occurred.

THE DISTRICT OF ATHABASKA.

The remarks with regard to the district of Keewatin apply also to the district of Athabaska. There do not appear to have been any cases of distress reported to the department during the past season, and there is every reason to believe that the Indians and Half-breeds throughout this vast region are content and prosperous.

With the exception of a few local surveys which have been made in the vicinity of Dunvegan and at the Forks of the Smoky river on the Peace river, no steps whatever have been taken by the department towards opening up the district of Athabaska.

From the general information which has reached the department from time to time, there would not appear to be any doubt as to the adaptability of extensive portions of the district for grain and stock raising, and when one realizes that hundreds of millions of acres of valuable agricultural and timber land, in their virgin state, still remain available north of the large districts of Alberta and Saskatchewan, it would seem hardly possible to overestimate the value of this national asset. In view of the fact, however, that there still remain extensive areas of land available for settlement in the older districts, it would not be advisable to take any steps towards opening up this district in the immediate future.

I have the honour to be, sir,

Your obedient servant,

JAS. A. SMART,

Deputy Minister of the Interior.

REPORT ON TRIP OF INSPECTION TO GREAT BRITAIN AND THE
CONTINENT.

DEPARTMENT OF THE INTERIOR,

OTTAWA, March 17, 1902.

To the Hon. CLIFFORD SIFTON,
Minister of the Interior,
Ottawa.

SIR,—Conformably with your instructions of December 26 last, I left for England on January 3 last, in company with Mr. Will J. White, Inspector of United States Agencies, for the purpose of looking into the methods heretofore followed by the agents of the department there and on the continent, with a view to furthering immigration to this country. I reached England on January 10, and immediately set about to thoroughly acquaint myself with the management of the head office of our immigration service in London, as well as the different agencies operating under its direction in the British Isles and in Europe. While I am glad to bear testimony to the efforts put forth by the officials of the department to bring about the results which have been reported from time to time during the past few years, I must state that I soon came to the conclusion that in order to secure for Canada a fairer proportion of the large emigrating population which every year leaves England and finds its way to the United States, it would be necessary to make such change in our service in the old country as would bring the agents of the department, or the local agents now to operate under their direction, in closer touch with the population of the rural districts, and thus enable them to exert a stronger and more direct influence upon the persons who contemplate moving to another land.

I also learned by personal observation, and regret to report, that notwithstanding the fact that Canada has had permanent agencies throughout the British Isles for a number of years, and that enormous quantities of immigration literature have steadily during that time been distributed through the agencies, there would appear to exist to-day as much ignorance amongst the rural classes of England with regard to the resources of Canada as there does amongst some of the countries of Europe, where the department has been debarred, owing to restrictive laws, from making any immigration propaganda at all. I shall refer at length later to this subject, but in the meantime I would state that after careful consideration, I came to the conclusion that the most effective way of dispelling this ignorance was to disseminate broadcast through the mails, amongst the population of the agricultural districts, concise and reliable information respecting the advantages offered to British agriculturists as a suitable field for settlement, and to adopt a system of advertisement in the press similar to the one inaugurated in the United States some years ago, and which has been attended with such satisfactory results.

This increased publicity has already awakened a keen interest in Canada, as evidenced by the thousands of letters of inquiry that had already begun to pour into the

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High Commissioner's office before our departure. I have good reason to believe that the stimulus thus given to the cause of Canadian immigration will result in a large increase in the number of persons who will sail from England, even this spring, and as a special inducement to intending settlers and with a view to facilitating the journey to this country, it has been found advisable to provide for specially conducted parties, to which I will refer more fully later when dealing with this particular subject.

I also paid a visit to the continent and made a careful study of the system now in force there for inducing immigration to Canada. I may say that on the whole I found that the results achieved by the North Atlantic Trading Company were as favourable as could be expected under the circumstances, and it is therefore recommended that, subject to the modifications which have been agreed upon and which will be explained more fully under that part of my report dealing with continental immigration, the present arrangement with the company be continued.

I may say that from all I have been able to gather I feel satisfied that the present year will see a very largely increased number of people remove to Canada from Great Britain and Ireland, and if our arrangements, which cannot be but satisfactory to the various agents, result in such a desirable end, it will be largely due to the active and aggressive work of the department and its representatives on the other side. While I feel certain that our agents have in the past done everything it has been possible to do, there is no doubt that more definite arrangements will give more satisfactory results.

AGENCIES.

LONDON OFFICE.

As you are aware, the direction of the work, both in the United Kingdom and on the continent, is now under the direct supervision of Mr. Preston, and is entirely separated from all the other work of the High Commissioner's Office. No doubt this arrangement will contribute to bring the work in the United Kingdom as closely in touch with the department as possible, so that we may be fully informed at all times as to what progress is being made.

In order to equip the London office properly so far as the staff is concerned, and in order that the assistance given Mr. Preston may be of the best, it is proposed that Mr. Duncan, who has heretofore been located in Forfarshire, shall immediately on his return from a specially conducted party which he will take to Canada on March 21 next, together with Mr. Webster, of the Dublin office, be attached to the staff of the London office. These changes have been found necessary because in addition to the large correspondence coming into the latter office, the personal inquiries have been growing very largely lately as a result of the large advertising that has been done in favour of Canada. It is understood, of course, that Mr. Duncan and Mr. Webster shall be ready to attend to any matters in connection with lecturing and visiting localities in which it is thought special work can be done. Regarding the balance of the staff under Mr. Preston, I have arranged that he should be guided by his own judgment as to the persons employed, and that only those that are thoroughly competent for the work should be engaged. Before, however, employing additional help that may be required, Mr. Pres-

ton will consult with Mr. Pedley, as otherwise some difficulty might arise with regard to the money at the disposal of the department for immigration purposes.

EXPENDITURE AND SALARIES.

In going into the financial work of the High Commissioner's Office, I have arranged a system by which moneys will be paid out in a little different way from what was at first decided upon. I think the change will be more satisfactory both to our office here and to the High Commissioner's Office, and at the same time will not in any way lessen our full check on the expenditure of the office before made. In every case the office must furnish us with a statement of salaries for the month, and also an estimate from each of the agents as to the amount they require for the following month. The accounts of all disbursements from the agents will be forwarded to the head office for approval in the same way that the accounts in the United States are sent here before they are finally adjusted. In the case, however, of the estimated expenditure and the statement of disbursements I have arranged that Mr. Preston must approve of the accounts before they are sent in. In all other expenditures made by the High Commissioner's Office the accounts must first be forwarded to the department for approval. Another change that I have made is that cheques in future may be issued in English currency by the High Commissioner, covering the salaries and other amounts that may be authorized by the department to the agents or for the payment of accounts for advertising and other purposes, a bill of exchange for the total amount being forwarded to Mr. Preston and cheques issued from the office signed by the High Commissioner for the various sums to persons to whom the money is due. For the last two or three months we have been following the practice of getting bills of exchange for each individual case, but I found that this necessitated a very great deal of work, and I think that the change I have made will be more satisfactory while it does not in any way curtail our full authority over individual accounts.

NEW LONDON IMMIGRATION OFFICE.

On arriving in London I took immediate steps to carry out the suggestion as to the leasing of a building for an immigration exhibit, and in which the offices of the Immigration Branch of the department might be placed, removing them from the present location at 17 Victoria Street. I need not say that any one visiting the present location of the High Commissioner's Office cannot but conclude that for immigration purposes it is not at all suitable, if the best results are to be attained. Proper advertising is the most efficient instrument to use in endeavouring to induce the movement of population from Great Britain to Canada, and there would appear to be no better means for a good advertisement than the location of the immigration offices in the very centre of one of the thoroughfares of London. What I saw while on the other side of the Atlantic convinced me that more business would be transacted in London than possibly in all the other agencies put together, and an exhibit of the products of the west would probably be the means of attracting much greater interest and attention than is shown even now.

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I regret to report, however, that among all the offers that were made, which included a great many fairly good locations, there was not one which I felt justified in approving of, as I considered the department ought to have the very best location, and I did not feel like binding ourselves to lease any of those offered with the prospect that probably within a few months something more satisfactory could be secured. I was, therefore, obliged to leave without settling the matter. Instructions were given, however, that offers were to be received from time to time as places became available so that the department can decide at any time on a good location at a reasonable price being submitted.

My desire when in London was to secure a place as nearly opposite Trafalgar Square as possible, and on the Charing Cross side of it. It seems to me that there is no part of London through which such large crowds move as through this particular district. The Canadian Pacific Railway Company are now building new offices in this vicinity and opposite the Square, and their present quarters on King William Street will perhaps be vacant within ten or twelve months. This seems really to be about the best offer I had made to me, but the situation is up in the city, and is not equal, in my opinion, to the Charing Cross or Strand district. Immense crowds, however, pass the present Canadian Pacific Railway offices, and the windows are eminently suited for exhibition purposes, being large and practically covering two streets. If nothing better offers within a few months, I am disposed to recommend the leasing of the Canadian Pacific Railway building as a suitable place for an exhibition and for the immigration offices of the department, but I am in hopes that before very long, one offer especially that was suggested may be made and which will give the department a location in the district that I referred to above.

IMMIGRATION DISTRICTS AND LOCAL AGENTS.

After carefully going into the matter of the work, in so far as the agencies are concerned, and giving the various details full consideration, I have come to the conclusion that it would be in the interest of the service that the agents should have certain specified districts within which to operate instead of their work being of a general character. They have been further authorized to appoint in every centre of population live local agents, who will give special attention to Canada and to the proper distribution of literature bearing on its resources. Under this arrangement the local agents, who will work under commission, will, of course, be personally interested in sending forward as many settlers as possible, and this will give the department an agent in practically every centre of population. These agents can be corresponded with, and reports will be received from time to time from them as to the movement of population. I am convinced that this re-arrangement will give great satisfaction, and will lead to results which it would be hard at present to estimate. Another advantage which will come from the change is that the department will thus be in a position to advertise the names of its local agents in various districts throughout the country. This, in the old country, means much.

It has been deemed advisable to make the following re-arrangement with regard to the various immigration districts:—

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SCOTLAND.

Scotland will be under the general direction of Mr. Murray, with no paid agents outside of his office. In order to carry on the work effectively it has been decided that he should appoint at once local agents in every centre where he can secure the services of an influential and satisfactory representative, the remuneration of such local agent to be by commission. My suggestion has been that it would be desirable, in practically every case, to appoint a leading steamship agent or agents as local agent. The commission to such agent shall be an additional 5 shillings for each settler, or the members of the settler's family over 12 years of age who may be sent to any portion of Canada. The class of such emigrant to include farmers and farm labourers. Where other than these are sent the commission can only be paid on the understanding that such emigrants will report to the Commissioner of Immigration at Winnipeg that they are anxious to secure positions on farms. The commission of 5 shillings shall be in addition to the commission of 7 shillings now paid, or 12 shillings in all. The local agents in return for this additional remuneration will agree to keep themselves in touch with Mr. Murray, and will undertake to promote and encourage, as far as they are able, the interests of Canada in regard to emigration and will keep in their offices a stock of Canadian literature and give the most available publicity to any cards or pictures which may be furnished to them and which will attract attention. In order to verify the emigrants sent from these various offices, Mr. Murray will be expected to make close inquiry into each case and shall, when the local agents report to him persons having been sent to Canada, forward to the agent of the Canadian seaport to which the persons are booked, a statement of the names of such persons. This statement will be verified by the agent at the seaport and forwarded to Ottawa, and the commission paid with as little delay as possible. This will be the general rule, except in those cases already referred to where the agent must report at Winnipeg emigrants not having been farmers or farm labourers in their old homes. A printed card is being prepared which will be sent to the local agent to fill and address to Mr. J. Obed Smith, naming the case in which the exception is made, and the Commissioner will forward the same to Ottawa with his certificate, when the commissions will be promptly paid. For the present it is understood that Northumberland, Durham, Westmoreland and Cumberland, the four northern counties of England, adjoining Scotland, will be added to the territory assigned to Mr. Murray. This will remain in force until otherwise decided.

IRELAND.

The whole of Ireland, with the exception of the province of Ulster, will be in charge of Mr. C. R. Devlin, the headquarters at Dublin, and his work will be as heretofore with the exception that Mr. Webster will not be located in his office. It is understood, however, that Mr. Webster's services are to be utilized wherever possible and convenient in Ireland whenever Mr. Devlin may feel that his assistance is urgently required. Regarding local agents in Mr. Devlin's territory, I think that for the present it would be well not to make any arrangement, but if it is found to work satisfactorily elsewhere Mr. Devlin may arrange as in the case of Scotland. It is not thought, however,

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to multiply the agents in Ireland at a rapid rate, but from time to time local agents may be appointed in centres where it is felt that they can do good work.

Mr. E. O'Kelly is to be given full control of the work, under the supervision of the London office, in Ulster. His headquarters shall be at Belfast. The same system of local agents, as authorized under the re-arrangement in Scotland, to be applied to Ulster. Mr. E. O'Kelly shall, as rapidly as possible, secure the services of the best men available for the work in the province under his charge.

LIVERPOOL AND BIRMINGHAM.

It was found also to be advisable to create a new district out of that which is now regarded as the Liverpool district, and to place it in charge of Mr. G. H. Mitchell, as the existing arrangement is one that can hardly be continued, placing, as it does, Mr. Mitchell, whom I am satisfied ought to take full charge of an agency as he receives an agent's salary and acts merely in the capacity of an office clerk. This will leave Mr. Jury in charge of the Liverpool office with the present staff under his authority, and Mr. Mitchell shall take charge of an office which is to be opened in Birmingham. In view of the fact that the Canadian steamship companies have officers in Liverpool and are continually looking for business, it is unnecessary, in my opinion, to have a large office such as we have now in that city, and I have arranged that in future the rent and taxes, which now amount to \$1,875, or about £357, must be reduced and an office secured which will not cost the department more than £100. I did not wish to absolutely settle the question as to the agents who would be in charge of these offices, as I consider the division of the territory as to Birmingham, Liverpool and London offices should be decided chiefly by Mr. Preston. It is, I think, desirable in a number of localities that the local agents should be appointed in England as in the case of Scotland and Ulster, but these appointments must be made in the same manner and on the same terms and with the same conditions as those heretofore mentioned.

The district surrounding London, and to the south of it, will be under the general supervision of the London office itself.

WALES.

I am also of the opinion that Mr. W. L. Griffith should remain in charge of our work in Wales, but that he should have added to his territory the south-western portion of England, which is directly south of Wales, and which shall include such counties as may be fixed by Mr. Preston after consultation with Mr. Griffith. It is, of course, understood that Mr. Griffith shall be available for any work outside the district which may be assigned to him, as for instance, the movement of the Welsh colonists from Patagonia and any other work that may be assigned to him by Mr. Preston or by the department.

GENERAL.

I have arranged with the Commissioner that it shall be the duty of the agents to furnish the fullest information to the London office for transmission to the head office

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at Ottawa, and to consult with the London office on any matters of moment to which their attention may be called even though the subject may be outside of the district placed under their special authority. The agents shall continue as heretofore to forward their recommendations to the London office regarding advertising within the district.

The agents shall also furnish the London office with the names of local agents as fast as the appointments are made, so that the department may be advised, and in this way perhaps prevent misunderstanding after the arrival of emigrants who may be sent by local agents. It has also been clearly understood that only one local agent is to be appointed in any one locality.

The agents shall be authorized to travel wherever they may feel it necessary in order to carry out the work to the best advantage, but in no case should they interfere with the territory which may be assigned to another agent of the department, excepting temporarily, as may be especially arranged between the two agents and approved by the London office.

In order to meet the demands which are made from time to time with regard to the work of the agents, it is proposed that they shall keep, in the same manner as that done in the United States, diaries showing their movements each day. These diaries and any remarks regarding the work which will be of interest, are to be forwarded to the London office for transmission to Ottawa at the end of each week. If special assistance is required by any agent in regard to any special work, application should be made to Mr. Preston, and, if convenient, he will arrange for himself, or Mr. Duncan, or Mr. Webster, to render the assistance that may be required.

In arranging for these general regulations I had but one purpose in view, namely, to promote the best interests of emigration work from the United Kingdom to Canada. It is therefore felt that the agents should endeavour to work in harmony with one another to attain the object in view, and it is expected that each will in his own district adopt the best means at his disposal to secure the most desirable settlers for Canada.

PUBLICITY.

Immediately upon arrival in London we placed ourselves in communication with the leading newspapers, and had no difficulty in obtaining interviews which brought forth considerable discussion in the press, and I am pleased to say that the arguments which we urged in favour of Canada as a desirable field for British emigration were, as a general rule, very favourably commented on.

In various sections which I have visited, both in England and on the continent, I found the same old cry of a cold climate still being raised, and it seems to be the bug-bear with a great many people who would otherwise like to move to Canada. To give you an idea of the position, a paper which I had in my possession while in England had a long account, with illustrations, of a winter tournament, showing an ice palace as a most prominent figure. Although this ice palace had been constructed some 15 or 20 years previously it was still doing service to the injury of Canada.

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Another thing that seems to work to the detriment of Canada, to some extent at all events, is the fact that many people believe that in coming here they will simply hew their way through the woods as did the early settlers in the eastern provinces some 75 or 100 years ago, and that in order to prepare a sufficient quantity of land to raise a crop they must first clear it of all the timber. I doubt whether it is possible to get a British settler to come into any district in the eastern provinces now and settle down with the prospect of having to clear the land of the wood before being able to put it in a state of cultivation, and the only thing, therefore, that can be done is to encourage them to a different understanding of the conditions, especially on the free lands, but I have arranged that the government offices should be used in case the local authorities undertake to publish lists of improved farms which can be purchased in the eastern provinces, and also for the distribution of literature with regard to these provinces, which may be approved by the department, but in order to induce a large movement of people it is found much easier to work largely in the interests of the North-west alone.

NEWSPAPER ADVERTISING.

The suggestion made to me in almost every quarter, both in the United Kingdom and the continent, was that the people were entirely ignorant as to the conditions existing in Canada in regard to agriculture, and it was, therefore, felt that the first necessary step towards stimulating emigration to this country, was to remove, if possible, the deep-rooted prejudice prevalent amongst the rural classes with reference to the climate and other natural conditions of Canada as pointed out above, and impart accurate information as to the possibilities of the country. With this end in view, it was decided to undertake a new system of advertising, and in this relation I wish to express my appreciation of the valuable services rendered by Mr. White, whose experience in similar work on this side of the Atlantic contributed to such a large extent to the unprecedented movement of population, within the last few years, from the United States to Canada.

Advantage was taken of the columns of the leading newspapers, both city and provincial, as well as those devoted to agriculture, and a short, specially prepared advertisement was inserted therein with a view to reaching the classes of people whom it is desired to interest in Canada. In addition to this eight-inch space, which had been contracted for for a period of three months, these papers also agreed to insert such free reading notices as might be furnished them. Mr. White, therefore, prepared reading notices, which appeared in the best papers in England, Scotland, Ireland and Wales.

The total expenditure incurred for this advertising will probably amount to some £3,000, but as it will be the means of reaching millions of people, I have no doubt that it will be fruitful of results which will fully justify the outlay.

'WESTERN CANADA.'

Concurrently with this newspaper advertising, it was decided to issue a special edition of a paper entitled *Western Canada*. The work has been exceptionally well done and has attracted considerable attention. The cost of the same has been some-

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what reduced by an arrangement which it has been found possible to make with the postal authorities, by which the papers have been mailed to their destination for one-half penny each instead of one penny. I consider that this publication is probably the best one which has ever been issued by the department for distribution in the old country. Over 500,000 copies of the paper were issued.

Occasion was taken of this extensive advertisement to disseminate reliable information with regard to the resources of Canada, and one circumstance which was referred to in the paper, and which probably created the greatest interest, was the fact of the large number of Americans who are streaming into the Canadian west. This seemed to be practically unknown on the other side and was made the subject of much comment by the newspapers, it being pointed out that if Americans saw great advantages in settling in Canada, there was no reason why Englishmen should not do so themselves, and at the same time remain British subjects. To give an idea of the interest which this vigorous advertising created amongst the farming classes, I may state that when we left London the number of letters of inquiry arriving at the immigration office reached as high as 500 letters a day, and that the prospects were that when the full benefit of the advertising has been attained, this number would be largely increased.

Care had been taken to obtain satisfactory evidence, in the form of affidavits, from the publishers of the paper, as well as from the persons in charge of the addressing and the post office authorities, as to the papers having been properly issued and transmitted to their destination.

The cost of printing and circulating *Western Canada* will be in the neighbourhood of £2,100, which is considered a fair and reasonable charge, and, as far as could be regulated, is well within the price at which such work can ordinarily be performed:—

Cost of printing.	£1,200
Postage on 340,000 copies to farmers, &c.	716
Addressing, affixing stamps, and wrapping.	120
Preparing blocks, &c.	50
	<hr/>
	£2,086

It may be further explained that nearly 500,000 copies of *Western Canada* were mailed to the homes of agriculturists, gardeners, farm labourers, and others that it is hoped will be interested in Canada. The balance of the papers were placed in the hands of shipping agents, railway and other agents, and local agents appointed by the regular officers of the department.

CIRCULAR.

To give a still further impetus to the advertising propaganda referred to above, 50,000 copies of a special circular were addressed by Lord Strathcona, in his capacity as High Commissioner, to ministers of the gospel, school teachers, chairmen of the chambers of commerce, the boards of trade, the secretaries of Young Men's Christian Associations and public libraries. The contract for printing these circulars was given to

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Messrs. McCorquodale & Co., Limited, and the total cost of printing and mailing the same amounted to about £450 or £475.

There is no doubt that this circular will have the effect of enlisting the sympathy of the directing classes in the old country, who may thus be willing to say a good word in favour of Canada, to the intending settlers who may apply to them for counsel and advice.

SCHOOL BOOKS (MAP).

It has been suggested by Mr. Preston that having regard to the policy which the department is following in the United Kingdom in directing special attention to the Dominion of Canada through the schools, as well as on general grounds, and in view of the fact that the books and geographies now in use in the schools are sadly deficient in reliable information respecting Canada, much might be done to popularize Canada and at the same time to correct the many erroneous views which exist as to the geography of the country, by the issue of a map of Canada for public distribution. Such a map should be coloured and in its general get-up should follow that issued by the Copp-Clark Company, of Toronto, with this difference, that its size should be considerably smaller—3 to 4 feet in length, and 1½ to 2 feet in depth. This question of size is an important one in order that no difficulty may be experienced by those to whom the maps are presented in finding wall space for the same. An issue of at least 10,000 copies would probably be required in order to ensure a thorough and effective distribution of the map amongst the schools, public libraries, workingmen's clubs and institutes, village reading rooms, Young Men's Christian Associations, clubs, literary institutions, &c., of the United Kingdom. I quite agree in Mr. Preston's suggestion, and would recommend that it be acted on.

POSTER AND HANGER.

Among other means of advertising which we have adopted and contemplate establishing in Great Britain and Ireland, is the preparation of a placard containing what we call our trade mark in our literature in the States. This is to be placed in all the railway stations and public places where it is possible to have it done on reasonable terms and where it will attract the greatest attention. We are now getting sketches, with estimates of the cost of this, as well as a new hanger which can be placed in the offices.

Regarding the work, both in the United States and in Great Britain, never was I more convinced of the fact that we may expect returns from our work in the way of immigration just in proportion to the amount of common sense business advertising that we undertake. The business of our immigration offices is lively and likely to show results at times when we do our greatest amount of advertising, and the sooner the department and the government are fully persuaded that immigration is secured by a proper system of advertising on continuous and systematic plans the better it will be for our work.

I am, therefore, convinced that with an additional sum which can be used, not in the appointment of agents, of which in my opinion we have quite a sufficient number at present, but in the best means of advertising, there is no reason why we should not have an immigration of from 75,000 to 100,000 each year, and possibly a greater number than I have named.

PROPOSED VISIT OF NEWSPAPER REPRESENTATIVES.

After carefully considering the whole question I am inclined to think that possibly the fullest care has not been exercised with regard to persons who have come out to Canada in the past under certain patronage of the department, at least that they have not been selected in such a way as I think could bring the best results, and while I approve in a measure of the principle of persons being asked to look over the country with a view of reporting upon it, I have come to the conclusion that we could this year adopt a plan which would certainly bring us a good return. The newspapers have been fairly well open to any statements we wished to make regarding Canada, and in view of the special interest which has been created and which will be greatly enhanced through the coronation proceedings, I therefore partly arranged for a party of the editors representing some twelve or fifteen of the chief papers of Great Britain and Ireland, to make a tour of Canada during the month of August or September next for the express purpose of writing up from their standpoints, with a view of stimulating immigration, statements respecting this country from their actual observation. In order to hold the thing within proper lines I concluded that it would be wise for them to come out, if possible, accompanied by Mr. Preston and go through to the coast, having him in charge and seeing that they do their work properly. Of course, if it is necessary we can send some one along with them as well as Mr. Preston on their arrival, but I think no better person than he could accompany them. My special reason for suggesting his name is that it will give him a standing with these papers which will be of vast assistance to him on his return to the old country as he will be in such complete touch with them. I have already consulted with some of the leading representatives of papers with regard to this matter, and they assured me that there would be no difficulty in arranging for a party of good men directly connected with the papers. Amongst others there will be the *London Times*, the *London Daily Mail* and the *Chronicle*, and perhaps one other leading London journal; the *Manchester Guardian*, the *Liverpool Mercury*, the *Birmingham Post*, the *Edinburgh Scotsman*, and an Aberdeen and Inverness and Glasgow paper, the *Evening Telegraph* of Belfast, which is the leading paper in Ulster, as well as the *Dublin Times*. These are by far the most prominent papers in the United Kingdom, and I am told that to get articles properly supervised by our own officials will give us a better advertisement than anything we have had in the way of newspaper advertising in the old country.

REUTER'S AGENCY.

Before leaving you will remember me having brought to your attention the question of dispatches being sent through Reuter's Agency. I am very pleased to say that while in the old country I was enabled to get in touch with this very extensive news

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agency, and to such an extent that I think the department will have little difficulty in arranging for the free circulation of any matters of interest which we may decide on sending. It was thought, as I mentioned to you, that the cost of this would amount to about \$3,000 per annum, but this expense can be saved, and I think a very considerable amount of good advertising can be had through the agency. I fancy that it is by far the best as its dispatches not only reach the papers throughout Great Britain and Ireland, but also those on the continent. I found that even to the papers in Germany statements which I had given to the papers in London had been sent through by Reuter's practically as full in regard to particulars as the accounts published in England. I therefore think it advisable for some person in the department to take charge of the gathering of information which we can use to the advantage of our immigration work, for transmission to the Reuter's, and I am sure they will give very full notices to all the papers of anything we might send.

WOLVERHAMPTON AND CORK EXHIBITIONS.

With regard to the exhibitions at Wolverhampton and Cork, it seems to me that Mr. McLeod, of the Liverpool office, might very well be sent and placed under Mr. Scott's authority at Wolverhampton for distribution of literature, &c. I think we might just as well use those that we have in the offices now instead of employing others, and Mr. McLeod has already had some experience so that there is no reason why he should not be quite capable of doing whatever is required of him in this regard.

FAIRS AND EXHIBITIONS.

It is proposed that at the various fairs and exhibitions, the distribution of literature will be continued, names taken of all who desire further information than can be given by the attendant in charge, to whom literature will afterwards be mailed by the agents of the department.

WELSH-PATAGONIAN EMIGRATION.

With regard to these settlers, I need not say that the answer of Mr. Chamberlain was not at all satisfactory to the delegation that waited upon him, nor indeed was it very satisfactory to Canadians generally. It must be remembered, however, that the deputation that waited upon Mr. Chamberlain in no way represented Canada, but was simply a committee of Welshmen who were desirous of relieving their fellow-countrymen from distress in Patagonia. It was neither an unnatural nor an unreasonable thing for the committee to make the request that they did of the Imperial government. Especially is this true when it is borne in mind that these Welsh residents in Patagonia, although they lived in South America from 15 to 35 years, had not renounced their allegiance to the British Crown and might have been regarded by the Imperial government as British subjects in distress in a foreign country, and, therefore, entitled to every reasonable consideration. I was informed that some time ago these same people made representation to Mr. Chamberlain asking to be transported to South Africa. Now this might have accounted in a measure for his reply when he stated that he misunderstood the object of the meeting of the deputation to himself. His reference, how-

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ever, to the climate of Canada was a most uncalled for thing, and I think that it was quite proper for Canadians to resent it.

I certainly feel that if this government makes a grant to the committee appointed in this connection of \$5 per head, which will amount to \$2,500, in addition to the large expenditure which was incurred in sending Mr. Griffith and Mr. Reese—nearly as much more—to Patagonia to interview these people, that is all that could be expected of us. Moreover, I am convinced that just as many of as good a class of settlers could be got for an expenditure of probably less money.

PERSONALLY CONDUCTED PARTIES.

I am convinced that from the information which has been conveyed to the people in the old country generally through the publicity above referred to, and also in view of the very sudden returns by way of inquiries, we may confidently look forward to a very largely increased number of arrivals from Great Britain during the present year. In order to allay any feeling of timidity on the part of persons coming out, arrangements have been made to have specially attended parties of immigrants sail from Liverpool and Glasgow every two weeks, commencing this month. Each of such parties will be in charge of an officer of the department, and this arrangement will afford a splendid opportunity to those wishing to move to Canada to do so under the most favourable circumstances. A special circular to that effect was issued and distributed during my visit to the old country.

The following instructions were issued to the Commissioner of Immigration with regard to these specially conducted parties:—

In connection with the personally conducted parties it would be well, in each case, to advise the agents that in addition to what may suggest itself to them as necessary in order to secure a safe and satisfactory voyage, it would be their duty:—

1. To give every attention to the question of baggage and to assist the emigrants to take care of it. This at the port of embarkation as well as the Canadian seaport, at which they will arrive. They will further see that the emigrants are supplied with good and substantial food on the passage, (the steamship company, of course, must provide it, but the department is anxious that it should be of a good quality and not such as to create a dissatisfaction amongst the people,) and see that any persons who may be taken sick on the voyage or on the trains are properly cared for, and when a doctor is necessary to arrange to have one visit them. It sometimes occurs, especially on the trains, that passengers become ill and must have the services of a physician. In this case it is always usual for the agent of the department in charge of the train to telegraph ahead to have a doctor at the train ready to attend to any case.

2. It is necessary that the agent should see that a proper supply of food is taken on board, and that supplies are got from time to time as required. (In order to carry this out it is usual for the agent to telegraph ahead to places where food can be conveniently purchased.) It is understood, of course, that the passengers provide food for themselves on the railway journey, but the agent is to see that they are not overcharged for anything they may require.

3. On arrival at Halifax, or St. John, or Quebec, as the case may be, immediately interview the agent of the department with regard to any information that may be de-

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sired, and he will find that the agent will be glad to assist him in any possible way in matters that it may be necessary to attend to.

4. On arrival at the seaport the agent should telegraph to Mr. Frank Pedley, Commissioner of Immigration, Ottawa, of his arrival and of the number of passengers.

5. On arrival at Winnipeg, Mr. J. Obed Smith, Commissioner of Immigration, and his staff, will look after emigrants who may desire to stay over at Winnipeg. (It is understood that the agents in charge of the party must go through as far as the passengers may be billed, but not further than Calgary.)

6. The intention of the department on arrival in the various districts is to give every assistance that may be necessary to the passengers and to make them feel that the government is looking closely after their interests and doing everything to make their journey pleasant and agreeable. It is hoped, therefore, that the agents will become as well acquainted as possible with the passengers so that they may individually feel a confidence in the scheme.

It was decided, however, in view of the changes that were being made, that it would be well not to carry them out definitely until the agents who are coming to Canada in charge of specially conducted parties should return to the old country. Each agent is billed to take charge of a party and he would have just got nicely settled under the new arrangements when he would have to leave, so I concluded it would be better to let them carry on whatever work they had in hand that had to be completed and fulfil their engagements as to lectures, &c., which I understood some of them had made. They would then be in a position to take up the new work that had been decided upon.

SOUTH AFRICAN EMIGRATION.

As to the general policy of assisted emigration by the Imperial government to South Africa, which has been suggested and by which English farmers will be located on lands and supplied with complete outfits, I have no doubt that if such a policy is carried out it will certainly have a tendency to check our own work in England, although I feel certain that if the people who are assisted took time to consider the comparative advantages of South Africa as compared with Canada from an agricultural standpoint, they would hesitate before accepting any offers to locate in the Transvaal or the Orange River State, and possibly the competition will not be as keen as would appear on the face of it. I do not know that any fault could be found with the Imperial government for undertaking to locate a number of regiments of yeomanry in their newly acquired territory in Africa, as perhaps the British residents in the country would feel that they ought to be given a certain amount of protection, but I do think that Canada might very properly complain, after the large amount of money that has been spent in encouraging British emigration to this country, for the British government to discriminate against her in favour of another colony. Until, however, the policy of Mr. Chamberlain is definitely announced, it is perhaps premature to refer to it just now, and I am disposed to think that he will not be likely to undertake a course which will be so unpopular.

In conclusion, I may state that after some years of active experience in our immigration work, I have come to the conclusion that the field for work in Great Britain is

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one that will by 'employing up to date methods bring large returns,' and I certainly look forward with confidence to good results from our mission even during the present season.

The suggestion made to me in almost every quarter, both in the United Kingdom and on the continent, was that the people were entirely ignorant as to the conditions in Canada, and that what was necessary was to adopt a proper system of information, and from what we have done, I do not think that there will be any excuse in future for any person, especially Britons, not understanding the conditions as they exist in this country.

CONTINENTAL EMIGRATION WORK.

During my visit to the continent I made it my business to inquire more particularly into the work that is being carried on, and beg to submit the following statement as the result of my inquiries.

Under the arrangement, made some two years ago with the North Atlantic Trading Company, Amsterdam, Holland, for an aggressive propaganda in a number of European countries, I may point out that the efforts made by this company are, in my opinion, much more satisfactory than any work that was done previously through the local steamship agents. In having one large and influential institution giving special attention to Canada, not only through its head office but its various agents and the agents of the parties composing the syndicate on the continent, better results will, I am sure, be obtained than could possibly be expected in dealing with local steamship agents in the smaller places throughout the various countries. In my opinion, the local agents could do no more than give, (and perhaps could not owing to restrictive laws do that,) information regarding Canada, by the distribution of pamphlets when persons who were thinking of moving to Canada make application. The result of this system was clearly shown by the fact that the inspector, Mr. Preston, when visiting certain sections of the continent, found a great quantity of unused and obsolete literature stowed away in offices without having been distributed at all. The bonus paid to the local steamship agents of £1 per ticket on declared settlers, was about the same or perhaps less than the amount paid by other countries which are looking for continental emigrants, and consequently the agents had no special interest in Canada more than any other country, so that as a matter of fact, no organized effort was made or could be expected from such a plan. With a live company, however, which has shown very clearly that in most of the countries of Europe an aggressive campaign of education has begun in favour of Canada as a field for settlement, it would seem that much better results will in the very near future be obtained. I was informed, but as to the absolute accuracy I had no means of verifying it except in a general way, that of all the literature which was distributed through government channels under the arrangement with the local agents, not more than 10 per cent of it reached its destination. This is accounted for by the fact that the question of sending the literature which could be carried through the mails as ordinary letters seems to have been overlooked, at all events to a very great extent, and the authorities consequently brought into effect the provisions of the laws of a number of countries from which possible emigrants of a good class could be secured and prevented

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such literature from reaching its destination. Under the present arrangement, the preparation of pamphlets will be carefully looked after, so that no distribution is made excepting as ordinary mail matter, each being inclosed in sealed envelopes. During the past year upwards of half a million publications have been posted to the addresses of agriculturists throughout the various countries, a statement of which is hereto attached. The representative of the company states that fully 95 per cent of these reach the persons to whom they are addressed. I find that the active members of the syndicate have very fully informed themselves of the possibilities of Canada, and show a very keen interest in the work of inducing settlement, especially in the western territories of the Dominion. There cannot be any doubt that the results of their efforts will be very fruitful. From the statements furnished to me, and for the verification of which they have and are prepared to give any representative of the government the fullest access, it is very clear that they are willing to risk a very large amount in the undertaking as a business transaction, but they only feel disposed to do so if they have some guarantee for the permanency of the arrangement. It would appear only reasonable after the experience of the last year or two, and the fact that the company give every assurance of their intention to carry out to the letter the terms of the new agreement, that such an arrangement might be made with them as will give it more permanency and at the same time protect the department from any neglect on their part to fulfil their obligation. After full consultation, therefore, I am now submitting the terms of an agreement which I feel sure is the best that could be made in the interests of the government, and which will, I am advised, be satisfactory to the company. It is proposed that in consideration of the conditions of the agreement being carried out, the department shall grant to the company a bonus of £1 for each man, woman and child, only of the agricultural class, or to girls over eighteen years of age who are to be engaged as domestic servants in Canada, who may emigrate from the following countries:—Belgium, Holland, Denmark, Russia, Germany, Austria-Hungary, Northern Italy, Luxembourg, Roumania, Bulgaria, Servia, Switzerland, Norway, Sweden, and Finland, and any other countries that might afterwards be included in the arrangement. The conditions of agreement are as follows:—

‘The company shall undertake a systematic and persistent propaganda in the countries named by which people in the agricultural districts shall be made aware, by advertisement in the public newspapers and other publications where possible, by pamphlets published by the company in the various languages of the countries referred to, as well as by personal efforts by representatives of the company, as to the advantages offered in Canada as a field for settlement; these pamphlets to be distributed carefully by a representative of the company and through the mails, and all such publications and advertisements are to be approved by a representative of the government before they are distributed. The company agree that a sum of money not less than £3,000, or \$15,000, shall annually be expended by them in carrying on the work. Special provision is made in respect to settlers from Galicia, Roumania, Servia and Russia, excepting Germans, that each married man and wife shall be possessed of not less than \$100, and \$25 for each of their children, the maximum amount for a family being fixed at \$200: in the case of unmarried men and unmarried women, they are to be possessed of at least \$25. It is, of course, agreed that the amount named shall be over and above the cost of transportation. There will be no money restrictions with regard to other emigrants. In order to ascertain the amount of money the emigrants may be possessed of, it is to be provided in the agreement that the company shall be required to establish

By reasonable evidence, if requested by the department, that the emigrants are possessed of the amount referred to. It may be added that many, if not all the emigrants who sail from Europe, exchange their money for American money at the port of debarkation. In this way evidence can be produced to show the amount possessed by persons who sail at certain dates. In addition to this the agents of the department at the Canadian seaports have instructions to make inquiries on this point. Another provision of the new arrangement will provide that the department in addition to the bonus named, in order to assist and encourage the company in a special effort in Norway, Sweden and Finland during the next two years, and after two years in any countries which the department may name, shall make a grant to the company of £750 for special work on the condition that the company will supplement this amount by an actual expenditure of £1,000 on the same special work. The company, as security for establishing their bona fides and the fulfilment of the terms of the contract, shall deposit with the Canadian government the sum of £1,000, which is to be retained by the government for at least three years, and upon which the company is to receive interest at the rate of three per cent per annum.

It is further agreed that the duration of the contract shall be for a term of years, ten being mentioned as the number, on the condition, however, that the department shall, on demand, have the right to cancel it, upon reasonable evidence that the company has neglected to fulfil the conditions, or any portion of them, imposed upon it. The other details in connection with the arrangement will provide for the payment of the bonuses to be made quarterly beginning on January 15. It is, of course, clearly understood that no bonus is to be paid on any except those who have been occupied in farming operations in the countries named herein.

It will be remembered that some two or three years ago an arrangement was made with Mr. Crogius, of Helsingfors, Finland, through Prof. Mavor, who visited Finland in the interests of emigration to Canada, by which he should receive a bonus of six dollars for each emigrant from that country. No practical results have come from this arrangement. I am informed that, under the Emigration Laws in force in Sweden, Mr. Crogius cannot undertake any active work directly in the interests of Canada. He is the proprietor of perhaps the largest steamship agency in Finland, and consequently in this respect has much influence, but he cannot undertake to direct emigrants to any one country in preference to another, his business being simply to book passengers to any country to which they may apply to him for tickets. The emigrants themselves must name the place of their destination. In view of this and that nothing was done in connection with the arrangement made with him, it is thought advisable to make a special effort, as indicated in the proposed agreement, by which the N. A. T. Company will undertake to send a qualified representative or representatives to Finland, and to make a special effort to encourage emigration directly to Canada.

In connection with the arrangement it will be observed that France has been excluded from the countries named in the agreement. This is in view of the fact that the government has at present an office in Paris which it is thought might be used with advantage in connection with emigration matters. The office in Paris is centrally located, although not quite as satisfactory in some respects as could be wished for, especially for emigration purposes, and it would seem to be wise that use of it should be made by the Department of the Interior to promote French emigration. At present

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little is being done in this connection, owing perhaps to the fact that no grant is being made to the Commissioner, the Hon. Hector Fabre, to cover the expenses, and I am of the opinion that it might be well to make a limited grant for the present year to cover postage and any press notices which Mr. Fabre might think wise to insert. In addition to this, use might be made of the Canadian French papers and pamphlets which could be distributed through the Commissioner's office in Paris.

In Belgium, which is included in the agreement, the N. A. T. Company have been doing much to assist the representative of the department. Mr. DeCœli's work has not been accompanied with results commensurate with the efforts he has made; but the prospects for good work in the immediate future are such that I think it would be unwise to make any change in regard to this position. He is a Belgian by birth, and speaks both the French and Flemish languages, and has been most active in directing attention to Canada. It has been decided to arrange for a special party to leave Belgium for Canada to be accompanied by Mr. DeCœli.

It is well understood that the law in Germany is so very stringent and so effectively enforced that it is very difficult for persons who contemplate moving and settling in new homes to be got at, but I am satisfied that the efforts which the company will make cannot but result in a considerable number of German farmers taking advantage of the opportunities that are offered to them in Canada. The strong competition of the United States and the South American republics will, under the suggested new arrangement, be certainly overcome, and I feel certain that a fair share of very desirable emigrants will be obtained from the various countries of the agreement. It will, of course, be necessary for the department to see that the details of the agreement are being carried out, although I would not question the intention of the company in fulfilling its obligations as the returns which the company may expect will depend very largely upon the largeness of the effort they will make. It has been understood between the company and myself, however, that the agreement as I have stated in this memorandum will be acted upon as at the first of January in this year.

While on the continent my attention was drawn to the fact that enormous sums of money are now being forwarded from foreign settlers in the United States to their friends at home; in many cases with the idea of paying for the tickets to bring them to America. In one instance, that of a steamship firm at whose offices I called, I was informed by the head of the firm that during the past year their office alone had received from persons who had moved a few years ago to the United States, over 4,000,000 marks, equal to \$1,000,000. This is now being carried on on a regular systematic basis, and all the leading steamship firms undertake to handle and forward all money sent to them by parties who have moved to America for this purpose.

I am satisfied, on consideration, that a system can be devised by which the offices of the department can be utilized in this way, which will encourage, possibly as much as anything that can be thought of, emigration from European countries to Canada. The very fact of a man being able to send back money to bring his friends out is as strong an argument as can be used with some people as to the success following those who come and settle in our country. In addition to this, the settlers who wish to forward their money would feel satisfied that placed in the hands of the government it

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would be perfectly secure, and I think it would even pay the department, whatever the small cost might be, to transmit the full amount of any moneys without charge or deduction placed in their hands for this purpose.

I intend to devise a plan for carrying out this work systematically, but of course it will take a little time.

PARIS OFFICE.

With reference to the Paris office about which you have asked me to make a special report, I beg to say that I have visited Paris and have discussed with Mr. Fabre the question of his office. I find that it has been rented for a term of years (five); the lease has two or three years yet to run. The office may be considered as well located for some purposes, but for emigration work it is hardly suitable and more elaborate than is necessary and has not the advantages that an office located in a better thoroughfare would have for our work. There is certainly no occasion for so many rooms in an emigration office, nor do I consider that the department would undertake, if they were opening the office, to furnish it in the style that has been done in this case. The rental and ordinary expenses of the office amount to about \$3,000 per annum. Mr. Fabre advises me that the rental, taxes and insurance expenses have been paid up to July 1 last, and there is now due 6,200 frs. for rent and taxes, or nearly \$1,500 in all. You are, of course, aware that this office is situate on the third flat of the building and without an elevator, and for this reason as well as others, I think for emigration purposes it is not satisfactory.

I do not consider that the prospect of emigration from France is very bright. The syndicate with whom we do business on the continent undertook work in France, but they advise me that it is most difficult to distribute literature or even to secure advertisements in papers, and I have taken it from the list of countries under the agreement. However, I consider it well worth our while to try for the next year at all events, and I will make reference to it in my report on the continental work. I may say that I consider it advisable to use Mr. Fabre and his office so long as we are in a position to take advantage of anything he can do, but I would not recommend a very large expenditure being made until we see some more justification in it.

I may add that from what I can gather Mr. Fabre is very well connected, and in this way might be in a position to influence emigration, but I have no way of ascertaining what his ability would be in that direction. I think for this year, as the office I presume must be kept, on account of the term of lease, it would be worth our while to give him an opportunity. My opinion is that an expenditure of say, \$1,000 for the next year to be expended on a limited amount of advertising, which possibly he may be able to get and in postage on literature, &c., would be advisable.

I have the honour to be, sir,

Your obedient servant,

JAS. A. SMART,

Deputy Minister.

PART I.

DOMINION LANDS

DOMINION LANDS

No. 1.

REPORT OF THE COMMISSIONER.

DEPARTMENT OF THE INTERIOR,

OTTAWA, September 23 1902.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit my report for the year ending June 30, 1902.

The following statement sets forth the amount of work performed in my office as compared with the previous twelve months:

COMMISSIONER'S OFFICE—GENERAL STATEMENT OF WORK PERFORMED.

	1902.	1901.
Files transferred and dealt with.	35,877	31,153
Letters sent.		
..Originals,	25,954	21,620
Triplicates,	18,887	16,978
	— 44,841 —	38,598
Applications for patent—		
Number examined.	6,929	5,456
New applications.	3,116	2,202
Certificates of recommendation issued.	3,686	2,131
Official receipts issued.	37	469

The accompanying reports received from the different agents of Dominion lands, with their attached schedules set forth fully the condition of their respective districts, and the transactions of their offices.

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The past year has been one of remarkable prosperity, the abundant harvest of 1901, and the even greater crop of 1902, having placed the settlers in the North-west in a most satisfactory position.

Settlement is proceeding rapidly, and the immigrants who have established themselves here are proving the best of agents by inducing others to join them, and in this way-supporting the efforts of the Immigration Branch in no small degree and with undoubted success.

The settlers who are now arriving are of a desirable class. Among them are experienced farmers with capital, and the figures showing the number who take up land, satisfactory as they are, do not include all, as a certain proportion purchase farms in the older districts and from land corporations.

The result of this influx of settlement has been an increase in the value of lands, and prosperity of the country is evidenced in the erection of schools and churches, and in the substantial buildings which everywhere begin to take the place of structures which served through the earlier stages of pioneer life.

The question of surveys is now an important one, and special efforts will have to be made in order to meet the demands of settlement.

The ranges have greatly benefited by the bountiful rains early in the year, and stock is reported to be in excellent condition.

A local market has been created in some districts by the demand for draught cattle for new settlers, and this may possibly have reduced the number that otherwise would have been exported for beef.

Forest and prairie fires have been kept down under the strict system of guardianship now in force, assisted doubtless, by the wet weather, and no losses have been reported from this source.

The sub-agencies which have been established throughout the country have been of great benefit in outlying districts, and have contributed greatly to the speedy location of settlers. This system has now been carefully tested and has proved most satisfactory, as may be seen by reference to the report of work done.

The increased demand for lands has amply justified the course of the department in holding all even-numbered sections exclusively for homestead entry, and evidence is not wanting that those settlers who have already made their entries are complying more strictly with the regulations than heretofore, from the knowledge that an application for inspection with a view to cancellation, will speedily follow neglected duties.

It is hardly necessary to point out the effect of the activity in the west. The staffs of the various agencies are pushed to the utmost in satisfying the demands upon their

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time. Inquiries from all parts of Europe and America have added materially to the correspondence, whilst the constant work of furnishing information to those who appear in person, and the discharge of ordinary official routine, necessitate long hours of arduous work. It is with satisfaction that I can speak of the careful and efficient manner in which these duties have been performed.

I am, sir, your obedient servant,

J. G. TURRIFF,

Commissioner.

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No. 2.

REPORT OF THE INSPECTOR OF AGENCIES.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE INSPECTOR OF AGENCIES,
WINNIPEG, MAN., Sept. 1, 1902.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the following report for the year ended June 30, 1902, in connection with my work as Inspector of Agencies.

As you are fully aware, the year has been an extremely busy one and the pressure of work at the several district offices and at those of many of the sub-offices has been such as to tax the energies of the officials to the utmost, and at some of the offices it was found necessary to work long hours overtime.

I found in my rounds a great interest being taken in the welfare of intending settlers, in getting them satisfactorily settled on land. This attention on the part of the officials was much appreciated by the new-comers and assisted in no small measure in making them feel at home in the country.

As will be seen by reference to statement 'A,' appended, the total number of homestead entries granted during the year was 14,725, being 6,558 in excess of the preceding year. Taking each homestead as comprising 160 acres, the total area disposed of under that head amounted to 2,350,000 acres.

INSPECTIONS.

All the agencies were inspected at least once during the year and several of them two and three times. Those which are permanent, number sixteen, being the same as last year. The volume of business transacted at each respectively and the cost of management are shown in Schedule 'A' already referred to.

A most important part of the agency work, that of giving out information to land seekers, and assisting them in getting settled, it is impossible to show in tabulated form. Much time was taken up at all the offices in that connection.

It will be observed that, notwithstanding the enormous increase in business over last year, the additional expense in salaries and contingencies is exceedingly small.

SUB-AGENCIES.

Several changes were made in the sub-agencies during the year. Where the amount of business transacted had declined to small proportions the agency was closed and others were established at points where necessity demanded. A list of those doing business during the year is shown in Schedule 'B.' The figures given in the schedule are self-explanatory and show the extent of business performed at each sub-agency and the attending cost.

The policy of the department in establishing these branches has proved a wise one. Apart from the work of a routine character performed, which greatly relieved the pressure at the general agencies, they are found of inestimable value to the intending

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settler in that he can obtain reliable information relative to the land comprising the sub-agency and transact his business without the delay and expense of having to refer to the general agency.

The cash collections made by sub-agents are remitted each out-going mail to the general agent in whose district his office is situated. These remittances are made by postal or express order. You will observe on reference to Schedule 'B,' that the collections at these sub-agencies amounted in the year to \$93,504.46. This money reached the department safely and without unnecessary delay. In view of the large amount of money handled, it was deemed advisable to place the sub-agents under surety bond, as are the general agents.

Besides the work devolving upon me as Inspector of Agencies, I have attended to many matters of a special nature for the department.

My time has been so fully occupied with other duties that I have been unable to give very close attention to the routine work carried on in the Winnipeg Land and Crown Timber Agencies. I have, however, been able to keep in pretty close touch with the business, upon which I am frequently consulted by my assistants, Mr. J. W. E. Darby and Mr. A. F. Crowe, of the two branches respectively.

These officers have shown a great interest in their work and are deserving of favourable mention.

HOMESTEAD INSPECTOR AND FOREST RANGER SERVICE.

This service which has been under my personal supervision for some years has on the whole rendered satisfactory work. The names of the officials and the amount of work performed by each respectively, are given in Schedule 'C' appended.

In volume, a decided increase is shown, but, as will be observed from the figures in the schedule, the work performed by some of the homestead inspectors, suffers in comparison.

The work of the forest rangers, which is largely of a preventive character, cannot be rightly estimated or accounted for in tabular form.

Respectfully submitted,

E. F. STEPHENSON,
Inspector of Agencies.

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A. DOMINION LAND AGENCIES, principal transactions for the year ending June 30, 1902.

Agencies.	Homestead Entries granted.	Land Sales.	LAND SCIP LOCATED.		Applications for Patent received.	Land Entries cancelled.	Timber Permits issued.	Hay Permits issued.	LETTERS.		REVENUE.		No. of Staff.	EXPENDITURE.		
			No.	Acres.					Received.	Sent.	Scrip.	Total Scrip and Cash.		Salaries.	Contingencies.	
Alameda	1,579	47	369	31,987	177	508	474	172	7,492	3,989	5,976	28,162	3	\$ cts.	\$ cts.	
Battleford	168		9	1,680	2	11	22	18	663	421		2,382	85	1	500 00	26 43
Brandon	653	82	3	719 91	281	167	257	410	10,348	9,693	6,614	29,751	73	4	3,720 00	924 67
British Columbia							60		1,846	2,330		43,423	52	2	2,400 00	430 22
Calgary	1,495	78	59	11,262	125	351	339	173	9,735	5,686	23,712	38	4	3,711 84	562 32	
Edmonton	2,141	76	670	73,434	376	566	1,117	75	8,897	6,254	4,414	35,433	11	5	3,116 03	369 15
Dauphin	381	16	12	2,880	378	145	605	240	5,114	4,101	2,604	11,845	5	1	1,950 00	361 25
Kamloops	88	71			43	15		10	2,799	2,002	26,905	85	2	1,328 82	118 55	
Lethbridge	893	144	80	10,973 67	161	172	170	35	10,928	6,229	17,637	88	3	2,295 96	324 79	
Minneapolis	439	16			177	61	382	180	4,562	3,365	2,172	24	2	2,905 96	329 78	
New Westminster	26	9							1,699	1,396	240 00		3	1,281 26	142 70	
Prince Albert	1,069	21			192	110	434	40	3,813	2,519	2,708	89	1	2,225 90	232 65	
Red Deer	1,149	32			118	321	489	98	6,365	4,449	3,669	73	3	1,804 96	290 58	
Regina	2,438	89	1,184	154,550	378	382	398	407	13,750	11,043	13,124	43	6	4,587 56	430 57	
Yorkton	1,975	51			141	141	143	205	4,957	4,754	4,360	67	4	2,040 63	150 81	
Winnipeg	788	147			410	164	855	161	15,394	16,498	16,566	14	11	10,061 61	5,104 45	
For year ending June 30, 1902. .	14,725	879	2,317	293,526 58	2,955	3,694	5,685	2,194	98,296	81,588	128,641	21	53	\$45,169 56	9,612 43	
For comparison with year ended June 30, 1901.	8,157	1,165	1,564	210,634	2,257	2,376	5,329	5,630	96,486	77,153	204,422	69	48	(Salaries and Contingencies, \$47,815.75.		

Note.—The contingencies of the Winnipeg Office include the salary and travelling expenses of two Forest Rangers, Jerome and Walkinshaw, and travelling expenses of Messrs. Abercrombie, Coxie and McMillan.

E. F. STEPHENSON,
Inspector of Agencies.

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C. STATEMENT showing the work of the Homestead Inspectors for the year ended June 30, 1902.

Name of Inspector.	Headquarters.	Number of Land Inspections made.	Number of Applications for Patent taken	Number of Miles travelled by Wagon.	Number of Miles travelled by Rail.	Remarks.
Sigtr. Jonasson	Winnipeg.	130	50	2,819	1,080	From 15th July, 1901.
R. D. Foley	"	233	95	2,989	2,714	From 1st April services employed in Winnipeg Land Office.
J. F. Gibson	Brandon.	154	106	2,499	1,826	
Martin Jerome	Winnipeg.	137	111	2,706	1,455	
Jas. McArthur	Prince Albert.	64	108	3,760	128	
Neil McCallum	Yorkton.	216	216	4,988	364	
D. J. McDonald	Kamloops.	75	41	1,130	4,867	See also under head of Forest Ranger.
R. F. McGregor	Dauphin.	147	111	3,100	763	
W. W. Stuart	Regina.	415	208	3,563	1,579	
S. F. Porter	Calgary.	272	73	4,680	2,465	
Stephen Wilson	Red Deer.	88	12	1,369	110	From February—five months work.
J. W. Thompson	Minnedosa.	225	131	4,951	365	
W. B. Underhill	Melita.	176	148	2,204	2,632	
Thos. Young	Dauphin.	182	101	2,818	5,004	From January—six months work.
Jas. McDermid	Edmonton.	167	61	2,208	.....	From April—five months work.
Thos. W. Bryant	Calgary.	25	11	516	1,637	To end of November—five months work.
A. G. Harrison	Edmonton.	105	48	984	
		2,811	1,651	47,293	26,989	

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FOREST RANGERS AND PREVENTIVE OFFICERS.

Name.	Headquarters.	Timber Permit Applications received.	Hay Permit Applications received.	Seizures made.	Miles travelled.	Land Inspections made.	Number of Applications for Patent.	Remarks.
Wm. McMillan.....	Treherne.....	25	1	6	5,159	251	197	
C. A. Walkinshaw.....	Bossevain.....	179	11	3	2,819	2	1	
Jos. Coxo.....	Selkirk.....	17	.....	6	4,184	23	.....
Jno. Abercrombie.....	Moose Mountain.....	227	.....	.....	5,209	.....	.....
D. J. McDonald.....	Kamloops.....	24	.....	.....	5,997	.....	.....
J. A. C. Cameron.....	Edmonton.....	27	4,781	Asst. Crown Timber Agent, From 1st September.
		499	12	15	28,149	276	198	

E. F. STEPHENSON,
Inspector of Agencies.

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No. 3.

REPORT OF THE AGENT AT WINNIPEG.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS OFFICE,

WINNIPEG, MAN., September 9, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I am gratified, in presenting my annual report for the fiscal year ending June 30, 1902, to be able to say that the promise of continued and increased prosperity for the Canadian North-west, which in my last report I ventured to predict, has been more than fulfilled in the realization of the year which has just closed. The yield of all classes of cereals, the area of land under cultivation, the number of settlers who have taken up permanent residence, all show satisfactory increase respectively in quantity, area and number. There can be no doubt but that substantial progress has been made in Manitoba along all lines, and that a hopeful feeling for the future is everywhere in evidence.

In Schedule 'A' attached to my report as Inspector of Agencies, I have given a summary of the business performed at the Lands Branch during the year, which compared with that of the preceding year shows a satisfactory increase. In view of having given pretty full statistical information having a direct bearing on the work of the office in my report above referred to and in that of inspector, I will proceed to remark on the advancement being made in portions of my district, notably by the Galician settlers.

WINNIPEG CITY.

It is a noticeable feature indicating the solid basis of the advancement made by Manitoba in the past year, that in the city of Winnipeg alone, building permits have been issued for the season of 1902, for buildings exceeding in the aggregate \$2,000,000 in value, and for buildings actually in course of construction, or immediately about to be built; while reports come to me from all parts of the province that the increase of building and improvements in nearly all of the country towns is equally satisfactory.

SOUTH-WESTERN MANITOBA.

In the south-western portion of the Winnipeg district only a small portion of land remains available for homestead entry, this being one of the oldest settled and most populous parts of the province.

STUARTBURN DISTRICT.

In the south-eastern portion of my territory, that which is known as the Stuartburn district, is worthy of more than passing remark. A number of homesteads were taken up there some three to five years ago by Galicians, most of whom received governmental assistance, and who were regarded by many as a doubtful class of settlers and their importation an unwise experiment. The character of the country in that vicinity

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was not such as to attract much attention from the Canadian settler, being to a great extent very rough and hard to clear and improve. The following facts imparted by the sub-agent in that locality may be of interest as showing the result, so far, of that experiment. The Galicians in the Stuartburn district will produce this year over 5,000 bushels of wheat more than last year, besides an increase of from 8,000 to 10,000 bushels of other cereals. During the past year these settlers have purchased some five car loads of excellent horses. There are two complete steam threshing outfits and one gasoline thresher, owned by Galicians, and another steam one is being purchased by them for this fall's crop. The district is attracting a good deal of attention from stock buyers, these people being known to be exceedingly careful stockmen. The same may be said of their pigs, of which they raise large numbers and of the best breed obtainable.

It is a remarkable fact that several of these Galicians, who have earned and obtained their patents, own excellent stock, steam threshing machines and other farm machinery, as well as in some cases have purchased additional land, when they first arrived in the country not only had little or nothing to start with, but were among those who then were assisted by the government with food and other necessities. They are also rapidly adopting Canadian ideas, dress and manner of life and have a marked respect for the laws of the country of their adoption.

PINE VALLEY DISTRICT.

Another portion of the south-eastern section of this district recently opened up for homestead entry is what is known as the Pine Valley district. This comprises townships 1 and 2, in ranges 11 and 12, east. A considerable portion of the work of this office during the past six months has been devoted to settling the somewhat numerous squatters on these townships, and as many complicated claims arose between contending claimants, a large amount of correspondence became necessary in order to protect the interests of all so far as possible. This has been successfully done in a number of instances and a considerable number of desirable settlers, mostly from Northern Minnesota, have been located in this district. These are for the most part Icelanders, Swedes and Scandinavians, experienced farmers as a rule, and many of them have already almost earned their patents.

PLEASANT HOME AND GIMLI DISTRICT.

In the northern part of my district, that is to say, in the vicinity of Pleasant Home and Gimli, very material progress has been maintained by the settlers with very few exceptions, especially when the prevailing conditions are considered. It must be borne in mind that this district is settled for the most part by a class of people who were possessed of very limited means, and the class of land given them was of such a nature as to be generally considered not well suited for settlement, so much so that while it has been long available for homestead entry, settlers could not be induced to assume the task of clearing it of the timber and stones. Another obstacle in the way and which very materially affects the progress of settlers, is the fact of this district being subject to overflow of water from the country lying to the west, and until a proper system of drainage is adopted, there will always be trouble from that source.

Many years ago the district along the west shore of Lake Winnipeg was settled by Icelanders whose chief industry was fishing, while inland the country was a wilderness of timber, scrub and water, and was generally thought unfit for settlement. It was left to the Galicians, however, to demonstrate the fact that this portion of it could be made habitable, productive and well suited for settlement, and these people have energetically undertaken the formidable task of bringing the land forming the district under cultivation. One only requires to visit the colony and observe the progress these people have made under the most trying circumstances of privation and in many cases of

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want, to see what energy, hard work and perseverance can do. There are about 600 families of Galicians, comprising about 2,500 souls in the district mentioned and many of them have from 5 to 20 acres under cultivation. For the most part they have done the work by hand, as they have no other means of doing it. Nearly every family is possessed of at least one cow, and some have as many as twenty head of cattle, so that, from information given by our homestead inspectors, I believe the colony now possesses about 2,500 head of stock, all in the pink of condition. They are very particular in the selection of seed for their farms, never sowing any but of the purest, hand-picked before sowing, and now after a trial of three years they have established beyond doubt that this district with careful and judicious farming can be made productive, adding to the material prosperity of the province of which it forms a part. They also excel as gardeners and have as good gardens as can be found anywhere.

With regard to their social conditions, very material progress is being made. They are not slow to pick up habits and ideas from the outlying settlers with whom they come in contact, and a noticeable improvement is manifested in every department of their social life. They evince a strong desire to educate their children and are establishing schools all over the district, and teachers tell me that the children are very bright and quick to learn. Their loyalty is unquestionable, and they are most anxious for full citizenship, all availing themselves of naturalization so soon as they are eligible.

There are also in this district a few Germans, Swedes and Norwegians, all of whom show themselves here, as elsewhere, a most desirable class of settlers, especially in a rough country like the one referred to.

TEULON DISTRICT.

The Teulon sections, also in the northern part of my district, and lying within a radius of from thirty to fifty miles from the city of Winnipeg, have naturally attracted some considerable attention from prospective homesteaders, and a large number has already been located there. The nationality of these settlers is of a most cosmopolitan character, Icelanders, Swedes, Scandinavians, Polanders, Hebrews, Assyrians, French, English and Canadians being represented, as well as some others. A considerable portion of this section is still available for entry, while to the north there are many townships as yet unsubdivided.

WITHDRAWAL OF LANDS FROM SALE AND ODD SECTIONS FROM ENTRY.

The withdrawal of Dominion lands from sale and the recent departmental order prohibiting homestead entry on odd numbered sections have naturally affected the volume of business in this office to a marked extent. The fact that notwithstanding this the returns have maintained an equilibrium is a matter of satisfaction.

NUMEROUS LAND SEEKERS.

During the past year the influx of American land seekers into the Canadian Northwest has been most marked. From Ohio, Illinois, Nebraska, Minnesota and the Dakotas they have come in hundreds, and the indication is that they are only the pioneers of many thousands yet to come. Some are pure speculators, but many are capitalists with a view to purchase for colonization purposes. Others are practical well to do farmers who have sold their farms at good prices and are glad to find that they can buy here better holdings at a fraction of the price. Others again are persons of limited means, but possessing practical farming knowledge, who have been attracted to our territory by learning that this government offers selection, from an unlimited territory, of excellent free homesteads, which are now becoming almost unattainable south of the 49th parallel.

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That our lands are being extensively advertised is apparent from the letters of inquiry constantly received at this office, which come from not only every state in the union, but from South America, the Commonwealth of Australasia and continental Europe as well.

COUNTER WORK.

The Winnipeg office, being as it were, at the gateway to the west, probably 90 per cent of those who arrive with a view to purchase, homestead, or investigate western lands, first visit this office seeking information, with the natural result that the counter work has been unusually heavy. Every effort is made to satisfactorily reply to the questions of inquiring settlers and to obtain suitable land for them and get them settled. This involves the taking up of much of the time of the staff, and is a work that cannot be taken credit for in tabulated form.

THE LATE MR. GOULET.

It is with sincere regret that I refer to the loss to my office staff sustained by the death of Mr. Roger Goulet, which occurred on the 25th day of March last. Mr. Goulet was a faithful, courteous and most competent official, whose services will be greatly missed. Being possessed of thorough information regarding the early settlers in Manitoba, his services were particularly useful in connection with all and any questions relating to the Half-breeds, and those claiming through them. He became a member of the Dominion Lands staff in 1879, and had been almost continuously employed in one capacity or another since the transfer.

Respectfully submitted,

E. F. STEPHENSON,
Agent Dominion Lands.

No. 4.

REPORT OF THE AGENT AT ALAMEDA.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS OFFICE,

ALAMEDA, ASSINIBOIA, August 20, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to submit the annual report of this office for the year ending June 30 last. I am glad to be able to report a very large increase both in the number of homestead entries and in the revenue collected over previous years. Land seekers began to arrive early in the spring and throughout the season a steady stream of settlers has been coming in. During the month of June, 510 homestead entries were recorded. The homestead entries granted during the year were 1,979, as compared with 466 for the previous year; while the total revenue was \$28,162.68, as against \$13,655.99 for last year.

There has been a large influx of settlers from the United States; these settlers are possessed of ample means and experience, many of them having sold their farms in the States for large sums, and, by buying cheaper and better land here will be able to start under favourable conditions. Many of these settlers who took up homesteads this spring have 50 or 75 acres broken and sown with flax, which will give them a good return for their first year's labour. Land has doubled in value during the past year and is still rising, which is a good indication that the country is going rapidly ahead.

The crop outlook could not be better, some wheat has already been cut and harvesting will be general throughout the district in a few days. The season has been most favourable as there was abundance of rain during the growing season. It is estimated that wheat will yield from 30 to 40 bushels to the acre, and other grains in proportion. Last year the average yield of wheat throughout this district was about 30 bushels to the acre. A large amount of breaking has been done this season, and the condition of the district as a whole is very satisfactory. Appended is a statement of work performed during the fiscal year, ending June 30 last:

Letters received.....	7,492
Letters written.....	3,909
Homestead entries granted.....	1,979
Applications for patent.....	177
Entries cancelled.....	508
Land sales (cash).....	6
Land sales (scrip).....	41
Hay permits issued.....	172
Timber permits issued.....	474
Half-breed scrip located (309).....	acres, 31,987

Your obedient servant,

R. CLAUD KISBEY,
Agent of Dominion Lands.

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No. 5.

REPORT OF THE AGENT AT LETHBRIDGE.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS OFFICE,

LETHBRIDGE, ALBERTA, July 22, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to submit the annual report of this office for the year ending June 30 last.

I have to report that owing to the steady increase in the number of new and energetic settlers who have arrived in this district within the last year, the volume of work entailed in answering letters, imparting information and locating them, has been very great indeed, and at times has taxed the staff to the utmost, to in any way cope with the work.

You will observe that the number of entries granted during the year is 893, while the number granted for the previous year was 524, and in reporting the number of entries granted it does not give an adequate idea of the number of new settlers who have come into the district; for some of them have purchased lands, others have leased lands and some have located in unsurveyed territory.

Although this is, to a certain extent, considered a ranching district, I may state that I am satisfied that there are at least 55,000 acres under cultivation, and although the season is a little later than last year, the grain promises to be a very large yield and will be harvested in good time. The cattle industry continues to be in a prosperous condition, and they have increased in numbers very materially and the prices for cattle and horses are above the average.

There are about 100,000 sheep in the district, and these alone give employment to a great many new settlers, and a handsome return to the owners.

From information I have received from different parts of the district, I am able to report that the settlers in nearly the whole of the agency, except the parts visited by the high water this spring, are in a prosperous and contented condition.

Appended is a statement of the work performed during the year :

Letters received....	10,928
Letters sent....	6,229
Homestead entries granted....	893
Homestead entries cancelled....	172
General sales....	144
Hay permits issued....	35
Timber permits issued....	170
Applications for patent received....	161

Your obedient servant,

A. J. FRASER,

Agent of Dominion Lands.

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No. 6.

REPORT OF THE AGENT OF REGINA.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS OFFICE,

REGINA, ASSINIBOIA, July 16, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to submit my report for the year ending June 30, 1902.
The statement of work performed is as follows :—

Letters received....	15,750
Letters written....	11,043
Applications for patent....	378
Entries cancelled....	362
Homestead entries granted....	2,438
Land scrip located....	154,550 acres
Timber permits issued....	338
Hay permits issued....	407

The applications for lists of vacant lands have far exceeded that of any former year and required the greater part of the time of one man to supply the demand.

The granting of 2,438 homestead entries, as compared with 912 the previous year, as well as the locating of 154,550 acres of land scrip together with the correspondence and other business of the office, have a heavy tax upon our limited staff and should the business of the office continue to increase as it has in the last twelve months, considerable additional assistance will be required.

The prospects for the farmers at the present time are very promising, and with the increased acreage under cultivation a still greater effort on the part of the railway companies will be required to carry out the amount in sight should the present favourable conditions continue.

The number and sizes of the ranches in this district are steadily increasing, and it is creditable to note that with increased prosperity the ranchers are giving their attention to those classes which are most in demand and find ready sale on the markets of the world.

Your obedient servant,

D. S. McCANNEL,

Agent of Dominion Lands.

No. 7.

REPORT OF THE AGENT AT CALGARY.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS OFFICE,

CALGARY, ALBERTA, July 14, 1902

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to submit my report of the work performed in this office during the year ended June 30, 1902.

The number of homestead entries, 1,495, exceeds the number granted the previous year by 692

The revenue from land amounts to \$39,947.50, exclusive of a considerable amount paid at head office on account of grazing leases, &c. Owing to the fact that all land at the disposal of the department has been withdrawn from sale, there has been a decrease in total revenue from last year of \$13,831.05.

As the business of the timber and mines branch for this district is also conducted at this office, I may mention that the revenue from this branch amounts to \$9,130.31, making the total receipts for the year from lands (including seed grain collections, \$438.28), and timber and mines, \$49,516.09. A separate report in connection with this branch has been prepared.

Last year's crop was up to the average. The winter was a very mild one. We had one or two bad storms in the spring that were rather hard on stock, but, altogether, everything is in a very satisfactory condition, good prices for everything having been obtained. There has been a very great rainfall this spring, especially in Southern Alberta; but the weather appears to have settled, and if it continues as at present there is no reason why we should not have an excellent crop.

The cattle and lumber industries, the former one of the most important in this district, are in a flourishing condition.

Mr. James Winn, the caretaker of the immigration hall here, estimates that about 12,600 settlers landed in Calgary during the last year. The settlers were of a better class than ever before; 2,011 were accommodated at the immigration hall; 654 car-loads of settlers' effects, valued at \$476,228 passed the customs at Calgary.

The settlers throughout the country appear to be doing well, and the city of Calgary and the various towns throughout the district are going ahead rapidly.

STATEMENT OF WORK PERFORMED.

Letters received.....	9,735
Letters written.....	5,686
Homestead entries granted.....	1,495
Sales entries.....	78
Half-breed land scrips located.....	50
Entries cancelled.....	351
Hay permits issued.....	173
Timber permits issued.....	339
Applications for patent received.....	125
Mining fees received.....	23
Collections on account of grazing rentals.....	103

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Amount received in ground rent of timber berths.	\$ 1,234 69
Royalty on sales.	3,964 52
Three hundred and thirty-nine timber permits issued, amounting to.	411 21
Twenty-one timber seizure transactions amounting to. . . .	1,512 36
One hundred and seventy-three hay permits issued, amounting to.	638 35
Amounts received in grazing rental.	1,178 68
Amount received in mining fees.	187 50
Amount received in coal lands fees, &c.	3 00
	<hr/>
	\$ 9,130 31

Your obedient servant,

J. R. SUTHERLAND,
Agent of Dominion Lands.

No. 8.

REPORT OF THE AGENT AT NEW WESTMINSTER.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
NEW WESTMINSTER, B.C., July 10, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I beg to submit my annual report covering the period of twelve months ended June 30, 1902.

The monthly summaries submitted show that the volume of correspondence maintains unabated average. The inquiries from abroad are specific as to many items: Rainfall, monthly temperature, products, standards and efficiency of educational facilities, openings for employment in the different lines of industry, &c. I have been favoured by the Provincial Bureau of Information with some supply of the various pamphlets issued.

The importance and development of the New Westminster district may be somewhat indicated by the fact that there are about sixty-five common schools maintained outside of cities of New Westminster and Vancouver, where together there are over one hundred more teachers employed and two good high schools well supported.

Were it not for the expensiveness of the clearing of the timbered lands and the dyking of the overflowed lands for cultivation, there is no reason why the valley of the Fraser river should not in the early future contain a large population.

Although the whole traverse of the mountain parts of the Canadian Pacific Railway presents scenery of great delight I may add that the last hundred miles beside the lower course of the Fraser river in view of mountain peaks, silvery lakes and sylvan groves appear to fit in well as the end of the journey and as a place of rest and enjoyment to the homeseeker, before re-engaging in the activities of life.

The summary of my twelve months' statement of work shows:

Letters received....	1,846
Letters sent, besides many circulars....	1,421
Homestead entries granted....	29
Homestead entries cancelled....	12
Applications for patent approved....	19

Respectfully submitted,

JOHN MCKENZIE,
Agent of Dominion Lands.

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No. 9.

REPORT OF THE AGENT AT RED DEER.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
RED DEER, ALBERTA, July 12, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I beg to submit herewith my annual report for the fiscal year ended June 30, 1902, and am pleased to say that this district has experienced a year of unprecedented prosperity, notwithstanding the fact that the growth of the crops was retarded in the earlier portion of last season on account of wet weather. We had the usual bright, balmy fall weather for which Alberta is so justly noted, and harvesting was successfully carried on late in the season. The winter of 1901 and 1902 was exceptionally mild, consequently very little, if any, feeding was necessary, and cattle, which were allowed to pick their living from the prairie, were in excellent condition in the spring. Last season a number of horses died from a disease called lung fever, which veterinary surgeons attribute to the animals eating old slough grass and drinking putrid slough water; however, as some horses which had been stabled all the time died of the same disease, it would appear that there must be some other cause for the complaint. As there is only one case now known to be in the district it is to be hoped that the disease has been stamped out. The past spring has been no exception to the previous three in so far as weather conditions are concerned, and it speaks well for the fertility of the soil throughout this district, to see the growing crops in the advanced condition in which they are at present. Crops of all description, except those sown on low lands, look very promising at present, and should we be favoured with the same warm, dry weather, which set in about this time last year, a bountiful harvest will be secured in this district. During the past two seasons a large number of fruit trees, such as standard apples, crab apples, plum and cherry trees have been set out, and the experiment is being anxiously watched, as many having experience in the cultivation of fruits, claim that the climate and soil of the Red Deer district will produce fruits of superior quality. There has been a large increase in the number of homestead entries granted in the twelve months ended June 30, 1902. This district has been particularly fortunate in securing a most desirable class of settlers, and its wealth and ultimate prosperity immensely enhanced thereby. Two-thirds of the homesteaders in this district have purchased adjoining railway lands, having sufficient means to enter into farming operations on a larger scale than would be possible on 160 acres only. This demonstrates the foresight of the government in withdrawing all homestead lands from sale, as had the practice of allowing a homesteader to purchase an adjoining quarter section been adhered to, all available lands would soon be taken up and with only half the population. The town of Red Deer has made wonderful progress during the past year, having about double in size and population. At present one of the largest lumber mills in the North-west is under construction, which, when in operation, will be capable of cutting 40,000 feet of lumber per day. This mill is to be operated by water power derived from the Red Deer river, and no doubt will encourage capitalists looking for profitable investments to start many manufacturing industries, such as the requirements of the country warrant. Innisfail, Lacombe and Ponoka, other towns in this district have also made satisfactory progress. A large number of school houses and churches have been erected throughout the district during the past year, and the new

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settlers are loud in their expressions of gratitude to the government for their liberality in free grants of land, timber and so forth, to assist in carrying out such laudable enterprises. The following is a statement of business transacted in the office for the twelve months ending June 30, 1902 :

	Number.	Amount.
Homesteads....	1,149	\$ 11,370 00
Improvements.....	68	1,473 39
Land sales.....	32	3,790 30
Sundries....		20 25
Timber permits.....	489	376 43
Timber seizures.....	6	66 75
Hay permits.....	98	234 30
Grazing rents.....	5	34 71
Coal land fees.....	12	69 20
Sundries.....	2	1 75
Seed grain collections.....	15	265 05
Revenue from sale of Indian lands		14,291 39
Total revenue.....		\$ 31,993 52
Letters received.....		6,365
Letters written.....		4,449
Application for patent.....		118
Entries cancelled..		321

Your obedient servant,

W. H. COTTINGHAM,
Agent of Dominion Lands.

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No. 10.

REPORT OF THE AGENT AT YORKTON.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
YORKTON, ASSINIBOIA, July 14, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I beg to submit for your consideration the annual report of the work transacted at this office for the year ending the 30th ultimo, which will show that there has been an extraordinary increase in the volume of business done.

Inquiries by letter from the United Kingdom, the eastern provinces, and especially the States, have been unusually numerous.

The fertility of the newer portions of the district now being occupied are equal to any settled in former years. These lands are situated along and beyond the extension of the north-western branch of the Canadian Pacific Railway and along the projected route of the Canadian Northern Railway, and are attracting many young farmers from Manitoba, who are looking for free homesteads.

The largest number of settlers for the last year have been Americans from the Dakotas, Minnesota, Iowa, Nebraska and the Cherokee Indian territory, all of whom are completely satisfied with the change, finding free land which combines all the essentials necessary to the success of settlers, namely, pure water, abundance of hay and timber, the absence of which was sorely felt in the lands whence they came.

There has been a steady augmentation of the Galician and Bukowinian colonies, these arrivals being induced to leave their homes in central Europe by letters received from their countrymen, who are now an assured success as agriculturists in western Canada. Just a month ago Welshmen, who settled in Patagonia thirty years ago, together with their descendants came into the district and are taking up land. These people, judging from their physique and general appearance, will certainly be a desirable acquisition to the west. The Hungarians are also increasing by frequent additions to their colonies who lose no time in selecting land and commencing work with vigour.

The settlements of all nationalities are in a thrifty, progressive condition, the area of crop and number of cattle increasing annually.

The crop of last year was certainly the heaviest in yield and most extensive in area yet grown in the district, yields of 35 to 45 bushels of wheat to the acre being common, whilst oats ran to 80 bushels, the export of the two classes reaching nearly the million figure. Although the season, and especially the fall, was unusually wet, yet very little grain was reported as damaged. Prices obtained for cereals were of the average, although some slight depression was caused towards the end of the winter by want of storage capacity and shortage of cars. The deficiency of storage will be met by the time the present crop is ready for market, as already one new elevator of 30,000 bushels capacity has been erected and arrangements are in course of progress for the building of two more.

The evidence of good crops for a period of years is seen in the increasing number of substantial brick and frame houses which are rising on the farmsteads of the older settlers. The pioneer sod and log stables are fast giving place to commodious frame barns, all of which denote the financial condition of the farmers, as these are being

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built without the assistance of loan companies, and indicate that the first settled portions of the district have totally emerged from the pioneer stage.

The following is a statement of the work done at this agency :—

Letters received....	4,957
Letters written	4,754
Homestead entries granted....	1,075
Homestead entries cancelled....	141
Hay permits issued....	205
Timber permits issued....	143
Applications for patents....	141

Your obedient servant,

JNO. McTAGGART,
Agent of Dominion Lands.

No. 11.

REPORT OF THE AGENT AT BRANDON.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
BRANDON, MANITOBA, July 14, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I beg to submit my annual report for year ending June 30 last.

The area in crop this year in my district is not so much in excess of that of last year owing to the heavy rains that have prevailed up to the present date. The fine warm weather we are now having is bringing the crops rapidly on and the country is looking beautiful.

The homestead entries granted have largely exceeded those of the past years and the daily demand for homesteads is still increasing. The settlers are locating in townships 4 to 10, in ranges 29 to 34, W., both inclusive, to the north and south of the Pipestone branch of railway. These settlers are chiefly from the United States, experienced men with enough capital to give them a fair start and who appear to be more than satisfied with the country. The Englishman, Canadian and Belgian have also secured many homesteads.

The demand of settlers for the cancellation of entries has increased, not that the homesteader is dissatisfied, but owing to the demand for land, where it is found that the regulations are not being carried out, an application is filed for an inspection with a view to having the land opened for re-entry by some one willing and waiting to perform the necessary duties. The sales of railway and private lands have increased and good prices have been realized. Many homesteaders purchase an adjoining quarter, thus securing an area of 320 acres.

The immigration branch of the work has been very heavy, the demand from the farmers to obtain men has never been so large, nearly every demand has been filled and in a most satisfactory manner to both employers and employees. Special mention may be made of the men brought out by Mr. Adamson. These men have been eagerly sought for, and the farmers in this community only hope that Mr. Adamson will next year double the number brought out this season.

From information I have received from farmers on every side, it is expected that the crop will yield as largely as last year, which was exceptionally good.

The following is a list of entries, &c., for year ending June 30 last :—

Homestead entries....	653
Applications for patents....	281
Cancellation of entries....	167
Letters received....	10,348
Letters sent....	9,603

Your obedient servant,

L. J. CLEMENT,
Agent of Dominion Lands.

No. 12.

REPORT OF THE AGENT AT EDMONTON.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
EDMONTON, ALBERTA, July 4, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to submit the annual report of this office for the year ending June 30, 1902.

PRESENT CONDITIONS.

Prosperity and contentment, a steady and uniform increase of settlement and strong faith in the future development of the country exist throughout the district.

WHY SETTLERS ARE COMING.

Many, owing to the activity of the immigration agents. Very many, because they have been written to by their relatives, friends and connections, who have tested the soil and climate and pronounce them good.

Many to get cheap lands.

Some on account of failure elsewhere, owing to dry seasons, grasshoppers, wind-storms, &c.

A few to speculate.

Many because the laws of Canada are well enforced and the homestead regulations suit them.

CLASS OF SETTLERS.

All classes, all nationalities and all conditions are represented. Never before was the average condition, education and financial standing of the incoming settler so high. Nowhere does there exist any purpose or desire on the part of new settlers to become other than good citizens of the state, obey its laws, establish school districts and build up new homes in a new land with the intention of becoming good citizens and at the first opportunity taking active part in its government.

EXTENT OF SETTLEMENT.

Settlement extends thirty miles north, forty miles west and eighty-five miles east, of the town of Edmonton and from thirty to sixty miles west and east, respectively, of the towns along the Calgary and Edmonton railway.

There were some 340,000 acres of homestead land and about 79,000 acres of scrip land taken up during the past year, making an average of a little over 1,000 acres per day.

WEATHER.

The spring opened fine and warm and much ploughing was done, but the rainy season set in about a week too soon and continued until June 21. This kept the crops

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back, but during the last ten days of June fine warm growing weather has set in and the crops now look well.

CROP OUTLOOK.

The total yield from present indications will be about 5 per cent greater than last year. Seventy per cent of the grain sown is oats, 20 per cent wheat and 10 per cent barley. Making a rough estimate from 115,000 to 120,000 acres will be under grain crop, and taking last year as a basis the yield should be about 6,000,000 bushels of grain.

LAND VALUES.

The value of land has gone up from \$3 to \$4.50 per acre. A good homestead in any locality, unimproved, has now an upset value of \$480. This in itself will undoubtedly bring more settlers into the district.

MARKETS.

The local market is good and gets stronger each year, many of the outlying settlers sell their grain to ranchers or to new settlers for seed at a good profit, many more feed all they raise and bring it to market in the form of pork and beef. The pork market is unlimited.

Last year the eastern demand for Alberta oats was large and the South African market took most of the surplus crop in oats, at 28 cents a bushel. There is not sufficient wheat raised to supply the local demand.

For the first time in the history of the west grain was shipped west instead of east for transportation, some 250,000 bushels of oats being shipped to South Africa via Vancouver. This movement will undoubtedly have a very important effect on the future prosperity of Alberta.

WORK OF THE OFFICE.

The staff has been increased by one, and is kept busy continuously during each month, there being no slack periods as in former years. The demands for information, the number of letters received, the applications for homesteads and patents, timber permits, plots of vacant lands, &c., are unprecedented.

WORK OF THE SUB-AGENTS.

Nothing has given greater satisfaction to the general public than the establishing of sub-agencies at the most populous points in the district. The work done at the offices of the sub-agents has been 50 per cent greater than last year. In a short time a sub-agency will be needed in the Vermillion district in the vicinity of Vegreville.

TIMBER.

Lumbering operations continue very active and the mill-owners are not able to supply the local demand. The appointment of a forest ranger and fire guardian has had good effect. The operations of the portable saw-mill owners are now being brought under control, and settlers cutting timber in trespass and for barter and sale are being made to realize that they are violating the law.

MINING.

There is very little activity in mining. One gold dredge only is in operation on the Saskatchewan river. Hand mining, owing to high water has almost ceased. In-

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quiries and investigations for coal areas, however, are on the increase and this industry will soon be one of importance.

HOMESTEAD ENTRIES AND REVENUE.

Both show a steady increase as compared with previous years as shown by the figures below.

1899-1900.	1900-1901.	1901-1902.
Entries 1,033	Entries 1,633	Entries 2,144
Revenue.. . . . \$ 24,017 59	Revenue.. . . . \$ 29,704 55	Revenue.. . . . \$ 35,433 11

SUMMARY OF ACTUAL BUSINESS DONE.

No credit is given this office for work done and collections made in connection with the Indian Department.

Letters received....	8,897
Letters sent	6,234
Applications for patent....	376
Homestead entries cancelled....	566
Hay permits issued....	75
Timber permits issued....	1,117
Homestead entries granted	2 144
Land scrips located....	670
Revenue.....	\$ 35,433 11

Your obedient servant,

A. G. HARRISON,
Agent of Dominion Lands.

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No. 13.

REPORT OF THE AGENT AT BATTLEFORD.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
BATTLEFORD, SASKATCHEWAN, July 7, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to submit the report for this agency for the year ended June 30.

Stock raising continues the chief industry of the people of this district and the past year has brought with it abundant success. The exceedingly mild and short winter season favoured ranchers immensely for whatever current expense is attached to ranching industries here is incurred largely in winter feeding.

During the past year fewer beef cattle were exported from this district than during the year previous owing largely it is said to railway and shipping blockades. But our ranchers have not suffered thereby, for at the present time oxen are in great demand for the heavy work of breaking new prairie land, and those who were fortunate enough to keep their steers are now realizing more for them.

The fact that the hardy breeds of cattle, such as the shorthorn, Hereford, Galloway and Polled Angus, come out fat in the spring, having had absolutely no shelter during the winter other than that afforded by nature does not appear to be widely known.

The crops of grain and vegetables were saved last year in fairly good condition. Autumn frosts did some damage to wheat in some instances; the season was late and excessive precipitation prevented the usually early maturity of the grain. On the whole, however, the yield was satisfactory both as to quantity and quality.

Atmospheric conditions have been favourable so far this year. We have experienced a couple of touches of frost since seeding time and some cloudy, cold weather and much more rainfall than usual, but the uniform heat of the past few weeks has had the desired effect and crops are now well advanced. Unless something entirely unusual occurs more than average success awaits the result of this season's farming operations.

There is in the neighbourhood of 4,000 acres now under crop, or about one-third more than last year, not including any of the crops of the Indian reserves of the district. Judging from the industry displayed in breaking new land the acreage will be double next year. Local demand is increasing with increase in population and the prospect of the accommodation to be afforded by the new transcontinental line of railway lends additional encouragement to the grain growing industry.

As will be seen from the returns of the Immigration Branch we are now being favoured with a considerable influx of new settlers. These come mostly from the north-western states of the union, some from Manitoba and Eastern Canada, and a few from the British isles. In nearly every case they have come well supplied with means ready to start farming and ranching. There are few artisans or labourers among the number, and all kinds of skilled labour now command good remuneration.

Your recent action in granting authority to the sub-agents of Dominion lands at Saskatoon and Rosthern to act in the same capacity for this district also will be appreciated. The number who desire to locate in the eastern portion of this district will find it of great convenience to be able to make applications at those offices.

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It will be observed that the work and also the revenue of this office show a decided increase over any previous year. The steady tide of immigration in this direction is destined to increase and soon this district will be one of the very important districts, and this office must soon be reckoned among the busy agency offices.

The following is a statement of the year's office work :—

Letters received....	593
Letters written....	421
Homestead entries....	168
Cancellations....	2
Applications for patent....	2
Hay permits issued....	18
Timber permits issued....	22

Your obedient servant,

R. F. CHISHOLM,
Agent of Dominion Lands.

No. 14.

REPORT OF THE AGENT AT MINNEDOSA.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
MINNEDOSA, MANITOBA, July 7, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I beg to submit my report of the work performed in this office during the year ending June 30 last.

Homestead entries granted....	439
Letters received....	4,562
Letters sent....	3,365
Applications for patent received..	177
Entries cancelled....	61
Timber permits issued....	382
Hay permits issued....	180

From this it will be seen that the homestead entries are in excess of the number granted during previous years, which is a gratifying feature in view of the fact that this is an old district where desirable homesteads are not as easily secured as in newer districts.

The farmers of the district were much encouraged with last year's harvest, which produced a quantity of grain so large that it taxed the carrying capacity of our railways to move it to market. Indeed the railways were unable to do this as promptly as was desirable, and many settlers were severely inconvenienced thereby, but this regrettable state of affairs drew attention to the remarkable productiveness of the soil, and clearly showed that the country was well adapted to and suitable for those desiring to engage in agricultural pursuits. This is evidenced by the large influx of settlers who intend to engage in farming and of capitalists desirous of investing in our fertile farm lands.

This season has been remarkable for the heavy rainfall which has seriously damaged crops on low lands. Apart from this the crops are looking well and the area sown to crop is largely in excess of any previous year.

Your obedient servant,

JOHN FLESHER,
Agent of Dominion Lands.

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No. 15.

REPORT OF THE AGENT AT PRINCE ALBERT.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
PRINCE ALBERT, SASKATCHEWAN, July 2, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to submit the annual report of the work of this agency for the year ending June 30 last, my connection with the agency dating only from March 1 last.

In so doing I would draw attention to the very rapid expansion of all branches of the work, the homestead entries being double the number made last year, the correspondence nearly twice as great, and the total revenue more than one-third greater. The applications for patent also are double those of the preceding year, and the seed grain collections are upwards of twice as great.

The major portion of this increase has been during the current calendar year, and the present staff of the office has been taxed to the utmost. The homestead entries for May and June, of this year, alone, are more than half the entire number of entries for the year 1900-1901. Were it not for the long experience and invaluable service of Mr. R. S. Cook, assistant agent, the volume of business reported could not have been done. The letters of inquiry now received at this office from England, all parts of the Dominion and of the United States, are themselves almost sufficient to occupy the time of one clerk.

A feature of the year is a large settlement of Norwegians and Swedes at Glen Mary. These are prosperous farmers from Minnesota and Dakota, and will be a valuable addition to the district. Mennonites, Doukhobors and Galicians continue to settle in large numbers east and west of Rosthern, Hague and Osler, while Manitobans, Ontario, English and American settlers are locating rapidly at Melfort, Birch Hills, Shellbrook and Saskatoon and are stretching far west toward Battleford. The majority of the latter are men of families and means, who are selling out farms elsewhere, and the extent to which the advance comers become unofficial immigration agents is very noticeable.

Doubtless the phenomenal harvest of last year co-operating with the vigorous immigration policy of the government, has accelerated the rush of settlement, and the present indications are that the yield of last year should, if anything, be surpassed by that of this. The growth of hay, brome and wild grass is luxuriant.

The Canadian Northern Railway is being extended vigorously. It will surely serve Melfort this fall, and is eagerly looked for here next year. Nothing is so anxiously watched, or so highly necessary, as the projected extensions of railway facilities through this district. The recent increase of the present train service to three trains a week will no doubt be immediately followed by the increase of the mail service to three mails per week.

The cattle trade, the lumber industry, and all branches of business, are feeling the increased movement, and the general outlook is for exceptional progress and prosperity.

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The following is the statement of the business transacted during the year ending June 30, 1902 :—

Letters received	3,813
Letters sent	2,519
Homestead entries granted	1,009
Homestead entries cancelled	110
Hay permits issued	40
Timber permits issued	434
Applications for patent received	192

Your obedient servant,

J. W. HANNON,
Agent of Dominion Lands.

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No. 16.

REPORT OF THE AGENT AT DAUPHIN.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS OFFICE,

DAUPHIN, MANITOBA, July 2, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to report on the general progress of the district for the year ending the 30th ultimo.

It is not possible to estimate the exact number of new settlers, as many are not of record in this office, but there is a slight decrease in the number of actual homestead entries from last year.

A considerable area of railway and patented private lands has been sold in many instances to new people, though the old settlers have purchased to enlarge their holdings, or provide homes for their growing families, as homesteads could not be had in the vicinity but there has not been very much activity in sales during the past few months.

The demand for cattle, hogs and poultry is still in excess of the supply, keeping prices favourable for the producer, and these lines could be considerably extended to great advantage and profit.

There was a marked absence of fires owing to the wet state of the country, and next to no damage was caused in this way.

Timber operations were carried on to a great extent, and though the rangers were able to supervise these to a greater degree than formerly, some cases of irregular trafficking were discovered.

The proposed improvements to the Mossy river, the outlet of Lake Dauphin, would if carried out, be of great benefit to a large area of country, while a thorough system of drainage, including the cleaning of the river beds, of fallen timber, brush, &c., is absolutely necessary, the flow of water following heavy rains, from the clear and cultivated lands being so rapid, that the original streams, though numerous, cannot contain the flood waters in their present condition.

The health of the district has been good. Small-pox appeared at several points during the winter, but being fortunately of a very mild type, though causing great expense, resulted in very few deaths.

A continuance of dry weather may result in improvements in crops by harvest time, but the average returns cannot fail to shrink from that of former seasons.

I attach a statement of some of the lines of work carried on in the office :

STATEMENT OF WORK.

Homestead entries.....	381
Improvements.....	25
Sales, cash.....	12
Sales, scrip.....	4

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Timber permits.	605
Hay permits.	210
Timber seizures collected.	9
School lands sale.	1
Seed grain collections.	26
Letters received.	5,114
Letters written.	4,101
Applications for patent received.	378
Entries cancelled.	145

Your obedient servant,

F. K. HERCHMER,
Agent of Dominion Lands.

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No. 17.

REPORT OF THE AGENT AT KAMLOOPS.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
KAMLOOPS, B.C., June 30, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR:—Agreeable to instructions, recently received, I have the honour to submit the report of the Kamloops agency, for the fiscal year ending June 30, 1902.

Homestead entries granted.....	83
Homestead entries cancelled.....	15
Hay permits issued.....	10
Applications for patent recommended.....	43
Land sales, twenty-four, aggregating.....	acres, 1,497
Town lots sold.....	2
Letters received.....	2,799
Letters sent.....	2,002

The business transacted during the year is exceedingly gratifying. Land sales have increased tenfold, and collections on time sales have been phenomenal. The increase in other departments has also been satisfactory. Increased business means increase of correspondence, and the number of letters received and written was correspondingly large, the increase being 70 per cent in the former, and 50 per cent in the latter, over the previous year.

A new feature of the business was the number of applications for grazing leases. At one time I expected to be able to report that the great majority of the applications had been granted. The public domain having been used so long for private purposes many interests have to be considered, and it takes time to adjust them. The territory to be covered is also large and scattered, and the expense of inspecting is so great that often the work of inspecting the first applications in a district has been delayed, so that the whole could be done at the same time. I trust in a short time all will be completed. I think that the granting of leases will have a beneficial effect on the pastures of the country. In many districts too many cattle were kept, with the result that the pasture was yearly getting poorer. As the land belonged to no one in particular, every one tried to keep as many head as possible, and no one thought to diminish his holding of horses or cattle. When the land is leased it is to be hoped that it will be different, and that lease holders will see that it is to their interest to keep no more cattle than the range will carry.

While making the inspections for leasing purposes, it was found in several instances, that individuals had fenced the public domain. When their attention was called to it, applications to purchase the land fit for agriculture, and to lease the remainder, were made.

The past year was a prosperous one for the general public. Prices for the products of the farm and range were good, as also the yield and increase. This part of the country is developing more and more into an exporting country. There is still much room for improvement. For a country so eminently suited to cattle, it is not creditable that we should import our butter and cheese. The old timer is wedded to his

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ways and he still prefers buying condensed milk from Ontario to milking a 'critter.' I am happy to report that the farmers of Salmon Arm are trying to start a cheese factory. It is to be hoped that they will succeed.

The business in cattle and horses has been good. Most of the former are shipped to the coast cities, while a good market for the latter is found in Manitoba and the Territories. The horses bred here are too light for farm work on the prairies, and better prices could be got for a heavier class.

Last fall several trains of stockers were imported from Ontario. I understand that they have done well, and that what was an experiment last year will be repeated. Several cars of blooded sires were imported this season, principally shorthorns and Herefords.

Kamloops and Ashcroft districts are principally devoted to ranching; Okanagan, Shuswap and Salmon Arm to mixed farming and fruit, while the breeding and feeding of swine is the principal industry in Grand Prairie. The surplus fruit is shipped to the towns of the prairies to the east; potatoes, oats and hay to the mining towns of Kootenay. Wheat grown locally to the extent of 200,000 bushels was bought by the local flour mills at Armstrong, Enderby and Vernon.

Dredging for gold was started on the North Thompson river during the year but was not a success. The dredge has been moved to the mouth of Tranquille river where it is to be hoped the parties interested will meet with the success they deserve. Considerable work, in the nature of development, has been done on mining properties in this vicinity. On one property in particular the work has proved very satisfactory, and if arrangements can be made to treat the ore locally a large force of men will be put on for the purpose of further developing the property and the taking out of ore for shipping.

A new steamer has been built at Revelstoke for the purpose of navigating that part of the Columbia river, between Revelstoke and the Big Bend. This will open up a country, reported to be rich in minerals.

A company owning mining properties near Golden are now negotiating for the purchase of the smelter there. It is their intention to treat the ore from their own properties as well as any that may be sent to them. Last year a large quantity of ore was shipped from Peterborough, via Golden, to Everett, in the State of Washington. A large saving will be made if such ore can be treated at Golden, besides giving employment to many people in our country.

Your obedient servant,

JAMES BANNERMAN,
Agent of Dominion Lands.

No. 18.

REPORT ON TIMBER, MINERAL, GRAZING AND IRRIGATION.

DEPARTMENT OF THE INTERIOR,

OTTAWA, September 20, 1902

SIR,—I have the honour to submit the twenty-second annual report of the Timber and Mines Branch of the Department of the Interior.

The revenue derived from timber, grazing, hay, irrigation and mineral on Dominion lands for the fiscal year which ended June 30 last, amounted to \$963,921.77. Statement lettered 'A' showing how this amount is made up, will be found at the end of this report.

The total revenue received from July 1, 1872, to July 1, 1902, was \$7,421,416.88.

Reports received from the Crown Timber Agents at Winnipeg, Edmonton, Calgary, Prince Albert and New Westminster, showing the revenue collected on Dominion lands within their respective agencies and other information are appended hereto.

The total revenue of the Winnipeg agency for the fiscal year 1901-1902, was \$69,427.83.

The price of lumber within the Winnipeg agency was from \$12.50 to \$15 per thousand feet B.M. There are twenty-four mills in operation within the agency, cutting timber under government license.

The revenue received from the British Columbia agency during the fiscal year 1901-1902 was \$57,919.27.

Lumber sold at the average price of \$10 per thousand feet B.M.

There are twenty-eight mills within the agency operating under license from the Dominion government.

The total amount of dues collected within the Calgary agency during the fiscal year 1901-1902 amounted to \$11,757.39.

The price of lumber at Calgary was \$14.50, and at Macleod, \$8 to \$20.

Seven saw-mills were operating within the agency last year under government license.

The total amount of dues collected within the Edmonton agency during the fiscal year amounted to \$8,293.57.

The price of lumber during the year was \$14.50 per thousand feet B.M.

There are five saw-mills in operation within this agency.

The total amount of dues collected within the Prince Albert agency during the year amounted to \$12,382.16.

Lumber sold at Prince Albert at \$10 to \$16 per thousand feet B.M. There are three saw-mills in this agency cutting timber under license.

Saw-mill returns received at this department give the following quantities of building material as having been manufactured and sold during the year within the six agencies :—

	Manufactured.	Sold.
Sawn lumber.	82,009,378	87,620,474
Shingles.	1,490,441	1,488,275
Shingle bolts.	5,568 $\frac{1}{2}$	5,568 $\frac{1}{2}$
Laths.	1,646,450	1,666,450

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Three hundred and ninety-eight licenses to cut timber were prepared. The areas in the province of Manitoba, the four provisional territorial districts, on Dominion lands in the province of British Columbia, and in the Yukon Territory, in force on July 1, 1902, are as follows, viz. :—

	Square Miles.
Manitoba.....	1,023·38
Alberta.....	1,141·57
Assiniboia.....	1·00
Saskatchewan.....	973·039
Keewatin.....	4·00
British Columbia.....	971·45
Yukon Territory.....	256·11

The number of applications received during the year to cut timber was 278 ; the number of berths granted was 77.

Within the past year forty-five berths were cancelled or relinquished by the owners thereof.

The number of berths under license or authorized to be licensed, in the province of Manitoba and the Territories is 215, and on Dominion lands in the province of British Columbia, 194. In the Yukon Territory, 101 berths have been granted, covering a total area of 256·11 square miles.

The number of berths covered by permits on July 1, 1902, was 91.

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The following statements show the timber limits either licensed or authorized to be licensed within the several Crown timber agencies :—

WINNIPEG AGENCY.

Limit.	License.	Name.	Locality.	Area.
				Sq. Miles.
1	Lease 10	D. E. Sprague.....	Rosseau and Pine rivers.....	5.20
2	10	"	"	4.30
14	90	Merchants Bank of Canada..	Shell river.....	50
15	91	"	"	38.75
23	92	J. Hanbury.....	"	50
23a	233	"	"	25
25	233	"	"	25
26a	122	"	"	5.17
27a	140	"	"	11.50
27b	140	D. H. Briggs.....	"	3.75
48	112	J. Hanbury.....	Little Boggy creek.....	5.50
92	53	V. B. Wadsworth.....	Little Swan river.....	25.00
544	113	Wm. Robinson.....	Bad Throat river.....	5.60
546	331	Imperial Bank of Canada..	"	30.42
551 D	173	J. & T. Shaw.....	Tp. 23, R. 19, W. 1st M.....	18
554	124	D. E. Sprague.....	Two islands in Whitemouth lake..	2
567, No. 3	196	P. McArthur.....	Fairford river.....	8
567 " 4	196	"	"	13.40
567 " 5	196	"	"	16.20
568	393	D. E. Sprague.....	Tp. 18, R. 7, E. P. M.....	16.38
571	330	Jas. Shaw.....	Tps. 25-26, R. 25, W. P. M.....	33.63
578	265	D. H. Harrison.....	Tp. 23, R. 18, W. P. M.....	14.49
592	174	Thomas & Co.....	Tp. 18, R. 3, E. P. M.....	2.00
603	201	"	"	2.00
615	217	F. A. Fairchild.....	Tps. 18-19, R. 19, Tp. 19, R. 20, W. P. M.....	6.31
621	270	Wm. Robinson.....	Bad Throat river.....	9.00
624, No. 1	237	D. E. Sprague.....	Between Lake of the Woods and Whitemouth river.....	5
624 " 2	237	"	"	22.75
624 " 3	237	"	"	1.60
624 " 4	237	"	"	3
624 " 5	237	"	"	3
676	263	Frank L. Engman.....	Tp. 19, R. 18, W. P. M.....	1.00
702	291	J. D. McArthur.....	Lake Winnipeg.....	50.00
716	287	Wm. Robinson.....	Black river.....	11.50
733	338	P. McArthur.....	Shoal river.....	15.00
734	338	"	Swan lake.....	
735	338	"	"	
736	338	"	"	
737	338	"	"	
742	248	J. Hanbury.....	Tp. 30, R. 30, W. P. M.....	6.24
745	252	Wm. Robinson.....	Bad Throat river.....	8
752	256	Wm. Peden.....	Tp. 20, R. 22, W. P. M.....	6
754	249	S. T. Thomas.....	Tp. 18, R. 3, E. P. M.....	0.50
759	286	J. D. McArthur.....	Lake Winnipeg.....	2
761	438	Lac du Bonnet Mining, De- velopment & Manufact'g Co.	Tp. 14, R. 11, E. P. M.....	4.93
795	292	J. Hanbury.....	"	3
814	281	T. A. Burrows.....	Tps. 31-32-33, R. 22, W. P. M.....	15
815	294	Jas. Drake.....	On east side Lake Winnipeg.....	4
823	337	McKenzie, Mann & Co.....	"	50
824	336	P. McArthur.....	"	15
825	277	G. B. Housser.....	Tp. 22, R. 18, W. P. M.....	36
826	274	Wm. Peden.....	Tp. 20, R. 24, W. P. M.....	1
838	302	P. McArthur.....	Red Deer point.....	15
856	344	J. Drake.....	Bad Throat river.....	12.25
857	333	J. D. McArthur.....	Tp. 15, R. 11, E. P. M.....	9.94
866	352	T. Fulton.....	Tp. 38, R. 5, W. 2nd M.....	18.00
867	407	Wm. Robinson.....	North of Hole river.....	8
869	355	"	On E. Shore Lake Winnipeg.....	21
888	377	M. & J. Ritchie.....	In Tp. 22, R. 17, W. P. M.....	3.75
900	405	J. H. McClure.....	Tp. 19, R. 2, E. P. M.....	7.00
918	416	J. D. McArthur.....	West side of Lake Winnipeg.....	14.00
924	420	J. H. McClure.....	Tp. 19, R. 2, E. P. M.....	5.00
927	419	"	Tp. 18, R. 1 & Tp. 19, R. 2, E. P. M.	4.00

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WINNIPEG AGENCY—*Concluded.*

Limit.	License.	Name.	Locality.	Area.
931	432	Messrs. Robinson & Co.	Tps. 16 and 17, R. 4, E. P. M.	4 50
944	439	P. McArthur.	Tps. 28 and 29, R. 17, W. P. M.	1 50
948	434	The Dominion Fish Co.	Nelson river, Lake Winnipeg.	4 00
950	444	K. Finson.	Tps. 23, Rges. 3 & 4, E. P. M.	0 75
958	464	A. W. Fraser.	Tps. 40 & 41, R. 5 & 6, W. 2nd M.	40 00
965a	439	The Lac du Bonnet Mining, Development & Manufact'g Co.	Tp. 13, R. 12, E. P. M.	6 00
967	440	The Lac du Bonnet Mining, Development & Manufact'g Co.	Tp. 14, R. 10, E. P. M.	36 00
974	462	Thomas Mackie.	Greenwood river	24 00
976	467	J. T. Thomas.	Tp. 18, R. 3 & 4, E. P. M.	1 57
980	476	Thomas Mackie.	Near Crooked creek.	20 00
981	482	"	Red Deer river.	50 00
982	486	K. & H. McDonald.	"	50 00
985	478	Wm. Robinson.	West end of Lake Winnipeg.	8 00
986	484	Theo. A. Burrows.	Tps. 27-28-29, R. 24-25-26, W. 1st M.	50 00
987	490	A. L. Wells.	Lake Winnipeg.	0 50
988	492	A. W. Fraser.	In Tps. 40-41, R. 4-5-6, W. 2nd M.	20 00
992	497	Theo. A. Burrows.	Tps. 39-40, R. 26-27 W. 1st M.	40 00
998	492	Wm. Jefferson.	Tp. 20, R. 1, W. 1st M.	1 00
1000	499	Theo. A. Burrows.	Tp. 39, R. 10, W. 2nd M.	5 00
1001	501	"	Tp. 41, R. 11, W. 2nd M.	6 00
1002	500	"	Tp. 42, R. 11, W. 2nd M.	4 00
1012	524	Drake, Telford & Blakely.	Lake Winnipeg.	8 00
1013	510	David Ross.	Tp. 5, R. 13, E. 1st M.	50 00
1014	527	Robinson & Co.	Bad Throat River.	2 50
1015	526	D. H. Telford.	Bloodvein bay, Lake Winnipeg.	12 00
1016	521	Wm. Robinson.	Lake Winnipeg.	4 00
Total area				1,258 38

EDMONTON AGENCY.

9 Block 5	Lease 15	Geo. Burn.	Red river.	8 55
9 " 6	15	"	"	17 50
302	83	"	N. Saskatchewan river.	3 75
496	87	"	"	36 15
788	296	D. R. Fraser.	Tp. 52, rge. 4, W. 5th M.	4 25
849	362	D. W. McKenzie.	Half Moon lake	3 00
863	354	G. A. Love.	On Lobstick.	6 89
864	343	John Walter.	In tp. 50, rge. 3, W. 5th M.	1 72
881	369	"	In tp. 51, rges. 25, 26, W. 4th M.	2 00
887	372	Bourchier, Gouin & Co.	In tp. 51, rge. 26, W. 4th M.	6 00
906	415	L. Peterson.	Tps. 46 & 47, rge. 28 W. 4th M.	4 00
911	413	G. A. Love.	Tp. 41, R. 2, W. 5th M.	2 00
928	445	S. J. Eccles.	Tps. 51 & 52, rge. 26, W. 4th M.	2 00
949	441	Foulger & Rawley.	Tps. 45, 46 & 47, R. 1, W. 5th M.	6 00
955	447	W. S. Dwinell.	Wolf river.	1 00
956	454	J. F. Featherstonhaugh.	Near Buck lake	2 84
959	465	H. Bowtell.	Tp. 41, R. 24, W. 4th M.	1 25
962	451	W. S. Dwinell.	Buck lake.	2 00
963	452	"	"	5 33
968	459	"	Wolf river.	8 00
970	457	"	Buck lake.	1 00
971	456	"	Saskatchewan river	1 60
972	455	"	Near Pigeon lake	9 00
1007	509	W. J. Webster.	Buck lake.	2 00
1008	507	D. R. Fraser & Co.	Buck Lake creek.	4 50
1009	506	W. S. Dwinell.	Wolf creek	2 25
1019	522	J. W. Blain & Thos. McKilvey	Tp. 45, rge. 2, W. 5th M.	1 00
Total area				135 98

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CALGARY AGENCY.

Limit.	License.	Name.	Locality.	Area.
				Sq. m.
36 No. 1	99	Peter McLaren	S. Fork of Old Man river.	3'00
36 " 2	99	"	"	5'25
36 " 3	99	"	"	5'48
36 " 4	99	"	"	3'75
36 " 5	99	"	"	10'00
36 " 6	99	"	"	2'80
36 " 7	99	"	"	7'40
36 " 8	99	"	"	1'20
36 " 9	99	"	"	1'44
36 " 10	99	"	"	5'67
36 " 11	99	"	"	3'90
36a " 1	117	"	Middle Fork of Old Man river.	28'13
36a " 2	117	"	"	8'25
36a " 3	117	"	"	8'75
36a " 4	117	"	"	2'73
36a " 5	117	"	"	2'25
80	45	North-west Coal and Navigation Co.	Near South Fork Old Man river.	50'00
105	39	Alberta Lumber Co.	Red Deer River	47'00
106	36	"	"	47'75
179	86	Peter McLaren	Middle Fork of Old Man river.	50'00
185	37	Alberta Lumber Co.	Red Deer river	48'75
186	38	"	"	47'70
199	46	"	S. S. Clearwater lake.	51'24
200	46	"	"	50'21
203	46	"	"	50'40
204	46	"	"	49'91
242	46	"	"	50'04
252	115	Peter McLaren	Red Deer river.	17'70
253	114	"	"	11'76
292	183	Chas. Beck.	North Fork High river.	47'08
318e	88	Eau Claire and Bow River Lumber Co.	Bow river	16'50
318f	88	"	"	16'00
318h	88	"	"	6'00
318i	88	"	"	4'00
318j	88	"	"	5'62
417k	88	"	"	7'50
425	50	Alberta Lumber Co.	S. S. Clearwater lake	35'25
455	176	Peter McLaren	Red Deer river	48'93
468	111	Jas. Quinn.	Little Red river.	50'00
552	319	La Corporation Episcopale Catholique Romaine de St. Albert and Mgr. Goupart ..	Cascade river.	5'00
569	170	J. Lineham	S. Fork. Sheep river.	21'33
573	Not issued.	Dept. of Indian Affairs.	Tp. 9, R. 3, W. 4th M.	11'35
579	213	Wm. E. Lineham	North Fork High river	33'33
582	Not issued.	Dept. of Indian Affairs	Belly river	6'50
583	145	R. G. Belvidere	Tp. 1, rges. 27, 28, W. 4th M.	4'00
594	190	John Lineham	S. Fork, Sheep river.	6'13
606	206	A. W. Gillingham	N. Fork, Old Man river.	3'00
784	250	Wm. Smibert.	Tp. 8, rge. 3, W. 4th M.	1'00
884	363	Indian Dept	Tps. 9 & 10, rges. 29, 30, W. 4th M.	2'00
886	364	"	Tp. 10, rge. 30, W. 4th M.	2'00
984	479	R. L. Findlay	Tp. 14, rge. 1, W. 5th M.	0'50
999	496	E. W. Stone.	Tp. 24, rge. 10, W. 5th M.	1'00
		Total area		1006'59

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PRINCE ALBERT AGENCY.

Limit.	Licenses.	Name.	Locality.	Area.
				Sq. m.
9 Block 1	Lease 15	Geo. Burn.	Red river.	6'00
9 " 2	15	"	"	6'04
9 " 3	15	"	"	1'87
66 or 'A'	33	"	Near Junction Rabbit creek	47'83
245	49	"	Little Red river.	50'00
320	80	"	Fox and Upper Rabbit creek.	50'00
474	79	"	Sandy lake.	50'00
563	Not issued.	Pas Band of Indians	West end Salt channel.	0'39
598	192	Jas. Sanderson.	Tp. 52, R. 1, W. 3rd M.	6'00
616	225	Geo. Burn.	Stony lake	35'00
616A	225	"	"	3'59
633	230	Jas. Sanderson.	Tps. 51-52, R. 1, W. 3rd M.	4'12
691	272	Geo. Burn.	District of Saskatchewan.	10'19
698	271	"	Tp. 23, R. 4, W. 3rd M.	5'00
708	346	W. Cowan.	Stony creek.	2'30
710	332	"	Near Sandy lake.	49'00
729	Jas. Sanderson	"	Tp. 52, Rgs. 1 and 2, W. 3rd M.	9'00
801	288	W. Cowan.	Stony creek.	1'00
802	346	"	"	3'55
848	304	J. W. Shannon & Co.	Tp. 52, R. 1, W. 3rd M.	8'54
862	347	W. Cowan & Co	Crossing of Shoal creek	1'00
868	361	J. H. Sanderson.	Tp. 53, R. 3, W. 3rd M.	36'00
889	380	Moore & Sanderson	On Sask'n riv., below Two Islands.	3'00
890	381	"	" " 380	3'00
891	382	"	" " 381	3'00
892	383	"	" " 382	3'00
893	384	"	" " 383	3'00
894	385	"	" " 384	3'00
895	386	"	" " 385	2'00
896	387	"	" below Seepanock chan.	3'00
897	390	"	On Pine ck., trib. of Sask'n river.	3'00
915	417	"	Sask'n river, R. 8, W. 2nd M.	6'00
916	418	"	" R. 10, W. 2nd M.	3'00
920	422	"	Saskatchewan and Carrot rivers.	50'00
921	421	"	White Loon lake	50'00
945	442	J. H. Sanderson.	Tp. 53, R. 2, W. 3rd M.	4'125
946	446	E. H. Moore.	Tp. 52, Rgs. 1 and 2, W. 3rd M.	4'53
954	463	Moore & Sanderson.	Sucker creek	24'00
960	453	Thomas Mackie	Crooked and Carrot rivers.	50'00
961	450	Wm. Cowan	"	50'00
964	448	Thomas Mackie.	Saskatchewan and Carrot rivers.	32'00
965	449	"	White Loon lake	25'00
977	472	Cowan, Sanderson & Moore.	Tp. 44, Rgs. 12 and 13, W. 2nd M.	16'00
1011	513	A. J. Adamson	Candle lake.	15'00
Total area.				742'039

NEW WESTMINSTER AGENCY.

Aa, Bb	119	Yorkshire Guarantee & Securities Corporation (Ltd.)	South of Cheam Indian Reserve.	680 acres
B	102	British Columbia Mills, Timber & Trading Co.	Tp. 7, lot 362, G. 1, New West.	3,320 "
H	108	British Columbia Mills, Timber & Trading Co.	Tp. 2, lot 33, Bk. 5, R. 2, W. 6th M.	960 "
K	107	Grant & Kerr	Tp. 2, Dist. New West.	360 "
L	109	British Columbia Mills, Timber & Trading Co.	Tp. 7, New West.	480 "
M	159	Grant & Kerr	Stave river.	541 "
O	184	British Columbia Mills, Timber & Trading Co.	Tp. 39 North, Dist. New West.	960 "
Q	141	Grant & Kerr	Tp. 1, Dist. New West.	320 "
R	120	The British Columbia Timber & Electric Co.	Tp. 2, Rgs. 1, 2, Dist. New West.	2,720 "
T	121	The British Columbia Mills, Timber & Trading Co.	"	160 "
V	175	W. A. Allan	Tp. 5, Rgs. 27 and 28, W. 6th M.	1,728 "

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NEW WESTMINSTER AGENCY—Continued.

Limit.	License.	Name.	Locality.	Area.
W	138	Dobbie, Davidson & Strathy..	Tps. 4, 2, 12, Dist. New West....	10,704 acres
X	197	Thomas L. Briggs.....	Tp. 15, East of Coast M.....	4,800 "
Y No. 1	182	Mossom Boyd Co.....	Upper and Lower Lillooet lakes..	1,493 "
Y No. 2	182	"	"	1,600 "
Z No. 1	154	Davidson, Henderson & Strathy	Tp. 15, East of Coast M.....	4,620.80 "
Z No. 2	154	"	"	1,680 "
3	103	W. C. Wells	Kicking Horse river.....	2.60 sq.m.
5	134	J. R. & T. J. Reilly.....	Kicking Horse river and Beaver creek	11.65 "
14	204	Columbia River Lumber Co..	Columbia river	24 "
15	204	"	"	22.53 "
16	200	"	"	15.55 "
17	241	"	"	16.50 "
19	370	"	"	25.00 "
20	142	T. & J. Long.....	Blue Water river.....	34.80 "
27	130	Columbia River Lumber Co.	"	1.00 "
29	202	W. C. Wells	Tp. 25, R. 19, W. 5th M.....	13.16 "
30	257	Columbia River Lumber Co..	Columbia river	4.40 "
32	391	"	Illecillewaet river	640 acres
33 No. 1	146	E. H. Heaps & Co	Stave river and Stave lake.....	1,024 "
33 No. 2	146	Brunette Saw Mill Co.....	"	2,803.20 "
33 No. 3	146	E. H. Heaps & Co	"	342 "
33 No. 4	146	"	"	155 "
36	123	Thomas W. Patterson.....	Tp. 39, G. 1, Dist. New West....	1,371.20 "
38	169	Wm. Caldwell	Coquitlam and Gold creek	14.50 sq.m.
40 No. 1	371	Columbia River Lumber Co..	Stony creek.....	6.25 "
40 No. 2	371	"	"	4.00 "
43	162	E. A. Wilcott & Co	Tps. 4, 5, R. 28, W. 6th M.....	1,685 acres
44 No. 1	167	Brunette Saw Mill Co.....	Bks. 12, 3, 4, Province British C.	396.70 "
44 No. 2	167	"	"	570 "
44 No. 3	167	"	"	500 "
44 No. 4	167	"	"	659.81 "
44 No. 5	221	"	Lillooet river	160 "
45	389	Columbia River Lumber Co..	Spallumcheen river.....	24.50 sq.m.
46	181	W. A. Allan	Tp. 5, Rgs. 27 and 28, W. 6th M.	760 acres
47	205	Columbia River Lumber Co.	Blackwater creek	22.66 sq.m.
48 No. 1	345	J. E. Murphy	Near James lake.....	1,568 acres
48 No. 2	345	"	"	588.80 "
48 No. 3	345	"	"	126.08 "
48 No. 4	345	"	"	698.30 "
48 No. 5	345	"	"	556.70 "
50c	155	McLaren & Ross.....	Chilliwack river	6,720 acres.
51	325	Grant & Kerr	Tp. 2, G. 2, N. West dist.....	80 "
52	157	Hastings Shingle Manufact. Co.	Tp. 39, New West dist.....	876.30 "
55	322	Ross & McLaren	Tp. 19, 22, 25, East Coast M.....	15,900 "
57	150	The British Columbia Mills, Timber & Trading Co.	Tp. 16, District N. West.....	1,920 "
58	137	Thos. W. Patterson	Tp. 39, Dist. N. West.	480 "
61	153	Yorkshire Guarantee & Securities Corporation (Ltd). ..	Tps. 2, 3, R. 29, W. 6th M.....	130.33 "
63 No 1	194	Harrison River Mills Co.....	Harrison lake	1,478 sq.m.
64	187	Shuswap Milling Co	Illecillewaet river	947.20 acres.
65	305	Columbia River Lumber Co..	Wait-a-bit creek	27 "
66	180	"	Sec. 24, Tp. 29, R. 10, W. 6th M.	582 "
67	320	Chas. J. Carrière.....	Hospital creek	960 "
69	149	G. E. Farrer	Tp. 39, W. Coast M.	354 "
70	321	Columbia River Lumber Co..	Columbia river	50 sq.m.
71	163	"	Tps. 22, Rgs. 10, 11, W. 6th M.	2,560 acres.
72	186	"	Salmon Arm of Shuswap lake....	4,779 sq.m.
73	306	"	Columbia river	18 "
74	307	"	"	27 "
77	148	H. H. Strathy	Tp. 39, Dist. New West.....	384 acres.
78	165	Columbia River Lumber Co..	Tp. 21, R. 10, W. 6th M.....	1,553 sq.m.
79	198	T. L. Briggs	Tps. 3, 4, Rgs. 3, 4, W. 7th M.	2,240 acres.
80	172	H. H. Strathy	Tp. 4, R. 4, W. 6th M.....	149 "
81	342	The British Columbia Mills, Timber & Trading Co.	Tp. 16, New West	960 "
83a	356	McLaren Ross Lumber Co....	Railway Belt, B. C.....	362 "
83b	"	"	"	680 "

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NEW WESTMINSTER AGENCY—Continued.

Limit.	License.	Name.	Locality.	Area.
86	410	British Columbia Mills, Timber & Trading Co.	New West district.	420 acres.
87	262	British Columbia Mills, Timber & Trading Co.	Tps. 2 and 38, R. 1, W.	640 "
88	185	Genelle Bros	Columbia river	4 22 sq.m.
91	191	Martin Bros	Tributary Harrison L.	1 "
94	210	Thos. W. Patterson.	Tp. 39, W. Coast M.	480 acres.
96	188	E. H. Heaps & Co.	Stave river	641 "
98	411	British Columbia Mills, Timber & Trading Co.	Near Stave Lake	400 "
99	412	British Columbia Mills, Timber & Trading Co.	Tp. 41, New West dist.	800 "
101	198	I. L. Briggs	Tps. 3, 4, W. 7th M.	163 86 "
103	189	Graut and Kerr.	Stave river	163 "
105	308	Columbia River Lumber Co.	Columbia river	6 sq.m.
106	392	C. E. Stephen.	Stave river.	4,699 acres.
110	358	Thos. W. Patterson.	Tp. 39, Dist. New West.	698 "
111	211	"	"	640 "
112	335	The Fred Robinson Lumber Co	Columbia river.	3 sq.m.
113	334	"	"	3 "
114	297	Genelle Bros	"	847 "
116	329	A. E. Phipps.	Beaver river.	4 "
117	328	"	"	4 "
118	273	The Fred Robinson Lumber Co	Columbia river	9 19 "
119	219	Columbia River Lumber Co.	Salmon arm of Shuswap lake.	393 acres.
123	268	The Fred Robinson Lumber Co	Tp. 23, R. 2, W. 6th M.	240 "
125	323	Brunette Saw Mill Co.	Near Burrard inlet.	530 "
127	278	Genelle Bros & Co.	Columbia river.	1,920 "
128	318	"	"	640 "
129	279	Peter Genelle & Co.	Tp. 22, R. 10, W. 6th M.	2,120 "
134	239	"	Tp. 22, R. 10 W. 6th M.	176 "
138	317	Brunette Saw Mill Co.	Tp. 18, E. of Coast M.	1,020 80 "
140	No lic. iss'd	Joseph Genelle	Tp. 24, R. 8, W. 5th M	960 "
144	314	Harrison River Mills, Timber & Trading Co.	Harrison lake.	216 "
145	315	"	"	216 "
148	253	Wm. Sulley	Stave lake.	329 "
150	295	E. H. Heaps & Co.	"	198 "
152	298	The Fred Robinson Lumber Co	Fish river and Coyd creek.	1,920 "
153	299	"	"	320 "
154	300	"	"	320 "
155	301	"	"	640 "
154	309	Albert McLaren	Chillaweyuk river.	440 "
159	310	"	"	600 "
160	311	"	"	720 "
161	312	"	"	560 "
162	313	"	"	440 "
163	314	"	"	320 "
171	260	Shuswap Milling Co.	Tp. 20, R. 13, W. 6th M	1 sq.m.
173	280	J. & A. Tretheway	Tp. 2, R. 29, W. 6th M.	53 80 acres.
176	264	British Columbia Mills, Timber & Trading Co.	Tp. 1, W. of the coast M.	320 "
177	327	Pacific Coast Lumber Co.	Coquihalla river.	1,038 "
185	276	E. H. Heaps & Co.	Tp. 4, ranges 2 & 3, W. 7th M.	582 40 "
186	275	Peter Genelle & Co.	Columbia river.	480 "
205	341	J. D. Breeze	"	1,457 "
206	324	Columbia River Lumber Co.	"	6 50 sq.m.
207	339	The Fred Robinson Lumber Co	"	4 25 "
209	357	G. E. Farrer.	In Tp. 39, W. C. M.	367 acres.
213	348	The West Coast Timber Co.	On North Arm Burrard Inlet	950 "
216	351	Grant & Kerr	On Stave River.	580 "
223	360	J. D. Breeze	In Tp. 23, E. C. M.	640 "
225	366	P. Ryan.	In Tp. 25, R. 28, W. 5th M	3 875 sq.m.
227	363	Harrison River Mills, Timber & Trading Co.	In Tp. 3, R. 30, W. 6th M.	80 acres.
228	374	Grant & Kerr.	Near North Arm Burrard Inlet.	731 "
231	375	Columbia River Lumber Co.	In Tp. 23, R. 18, W. 5th M	1 00 sq.m.
232	376	"	In Tp. 25, R. 20, W. 5th M	1 50 "
233	379	P. Ryan	On west of Adams Lake	23 "
234	388	Grant & Kerr.	In Tp. 25, E. C. M.	140 acres.

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NEW WESTMINSTER AGENCY—*Concluded.*

Limit.	License.	Name.	Locality.	Area.
235	469	P. Ryan	In Tp. 23, R. 28, W. 5th M.	6 75 sq. m.
236	463	T. Allen	On east side of Pitt Lake.....	160 acres.
237	394	P. Ryan	Near S. boundary of R'y belt.....	35 00 sq. m.
238	395	"	"	15 00 "
239	396	Columbia River Lumber Co.	Shuswap lake.....	35 00 "
240	397	P. Ryan	"	20 00 "
241	398	Columbia River Lumber Co.	Seymour Arm, Shuswap lake.....	15 00 "
242	399	"	Tp. 21, R. 11, W. 6th M.	9 87 "
243	400	P. Ryan	Tp. 24, R. 4, W. 6th M.	20 25 "
244	401	Columbia River Lumber Co.	Tp. 24, R. 5, W. 6th M.	25 00 "
245	402	"	Tp. 23, R. 6, W. 6th M.	21 13 "
246	404	K. Mikuni	Burrard Inlet.....	473 25 acres.
248	406	The Harrison River Mills, Trading & Lumber Co.	Tp. 3, R. 30, W. 6th M.	135 00 "
249	408	The Fred Robinson Lumber Co.	Columbia river	10 00 "
250	414	The Columbia River Lumber Co.	Tp. 21, R. 10, W. 6th M.	1 13 sq. m.
251	429	Yorkshire Guarantee & Securities Corporation, (Ltd)	Harrison Lake	3,520 acres.
253	423	P. Ryan	Tp. 25, R. 28, W. 5th M.	22 50 sq. m.
254	424	Harrison River Mills Timber & Trading Co.	Chehalis Creek	640 acres.
255	425	Columbia River Lumber Co.	Tp. 25, R. 21, W. 6th M.	0 87 sq. m.
256	426	"	Tp. 23, R. 18, W. 5th M.	1 25 "
257	427	"	"	0 75 "
258	428	"	Tp. 24, R. 18, W. 5th M.	1 75 "
259	431	"	Tp. 16, E. C. M.	0 50 "
260	436	"	Tp. 23, R. 18, W. 5th M.	0 75 "
261	437	"	"	0 30 "
262	435	"	"	0 25 "
263	433	The Ashcroft Water, Electric & Improvement Co.	Adams Lake.....	18 00 "
264	443	Harrison River Mills, Timber & Trading Co.	Chehalis Creek.....	427 acres.
268	460	E. H. Heaps & Co.	Stave Lake.....	960 "
269	466	Jas. C. Shields.....	Lillooet Lake.....	120 "
270	473	The West Coast Timber Co.	Burrard Inlet.....	320 "
271	470	Peter Ryan.....	Tp. 25, R. 27, W. 5th M.	7 38 sq. m.
272	471	Harrison River Mills, Timber & Trading Co.	Chehalis Creek	1,109 acres.
273	477	The West Coast Timber Co.	Burrard Inlet.....	160 "
274	481	J. Duncan	Tp. 3, R. 29, W. 6th M.	95 "
275	483	Harrison River Mills, Timber & Trading Co.	Tp. 24, E. of Coast M.	809 "
276	485	Columbia River Lumber Co.	Tp. 25, R. 21, W. 5th M.	0 63 sq. m.
277	487	"	"	1 25 "
278	488	"	Tp. 24, R. 19, W. 5th M.	1 63 "
279	491	The Fred Robinson Lumber Co.	Columbia River.....	3 00 "
280	489	The Harrison River Mills, Timber & Trading Co.	Chehalis or Swash Creek.....	640 acres.
281	495	The Fraser River Lumber Co.	Harrison Lake.....	584 "
283	516	The West Coast Lumber Co.	Tp. 6, R. 7, W. 7th M.	240 "
284	493	The Harrison River Mills, Timber & Trading Co.	Tp. 4, R. 30, W. 6th M.	160 "
285	494	Columbia River Lumber Co.	Tp. 22, R. 4, W. 6th M.	0 50 sq. m.
287	498	"	Tp. 19, R. 8, W. 6th M.	160 acres.
289	502	The Fred Robinson Lumber Co.	Tp. 23, R. 2, W. 6th M.	4 sq. m.
290	503	C. W. Brown & M. G. Van Nostrand.....	Pitt Lake.....	800 acres.
291	505	J. C. Shields.....	Tp. 22, R. 16, W. 6th M.	2 50 sq. m.
292	511	Fred. Robinson	Mountain Creek	6 00 "
293	514	Grant & Kerr	Tp. 1, W. C. M.	320 acres.
294	515	"	Tp. 6, R. 7, W. 7th M.	240 "
295	517	Columbia River Lumber Co.	Tps. 29, Rgs. 24 & 25, W. 5th M.	23 sq. m.
296	518	J. C. Shields	Tps. 2 & 3, Rgs. 28, W. 6th M.	1,500 acres.
298	520	J. C. Browne.....	Stathloo Creek	1,280 "
Total area.				971 45 sq. m.

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YUKON TERRITORY.

T. B. No.	Name.	Locality.	Area. Sq. m.
1	D. K. Campbell.	At the junction of the Lewes river with the Teslin river.	5.00
2	"	At the junction of McClintock creek with Lake Marsh.	5.00
3	"	At the junction of the Pelly and Yukon rivers.	5.00
4	"	At the junction of the Lewes river with the Teslin river.	5.00
6	"	On west side of Lewes river, at its junction with Lake Labarge.	5.00
7	"	On east side of Lewes river, at its junction with Lake Labarge.	5.00
8	"	Windy arm, Tagish lake.	5.00
9	A. S. Kerry.	"	5.00
10	A. W. Stevenson & Geo. A. Drummond.	On a creek tributary of Lake Labarge.	5.00
11	North American Transportation Co.	Klondike river.	5.00
12	The Canadian Yukon Lumber Co.	Lewes river.	5.00
14a	" " "	On Lewes river.	2.00
14b	" " "	On Stewart river.	3.00
15	" " "	Stewart river.	5.00
16	" " "	Lake creek.	5.00
17	" " "	Stewart river.	5.00
18	" " "	Rosebud creek.	5.00
19	" " "	Independence creek.	5.00
20	" " "	Stewart river.	5.00
21	" " "	"	5.00
22	P. E. Mitchell.	On west side of Taku arm, Tagish lake.	5.00
23	The Canadian Yukon Lumber Co.	Lewes river.	3.50
24	The Kerry Canadian Mill Co.	On east side of Tagish lake.	2.50
25	H. B. McGiverin.	Klondike river.	5.00
26	"	"	5.00
27	Richard Davenport.	On left bank of the Yukon river.	1.00
28	Benin <i>et al.</i>	On Lewes river, near Five Finger rapids.	1.00
31	The Yukon Saw Mill Co.	Yukon river.	1.00
32	"	"	1.00
33	J. J. Heney & Wm. Stewart.	Yukon river and Indian river.	6.00
34	D. H. Partridge.	On a creek tributary of West arm of Lake Bennett.	1.00
36	The Canadian Yukon Lumber Co.	Stewart river.	4.00
37	" " "	On south side of Stewart river.	4.00
38	" " "	On a creek tributary of Lake Bennett.	5.00
39	" " "	On north side of the Stewart river.	5.00
42	F. M. Rattenbury.	On a creek tributary of Lake Bennett.	5.00
45	Dawson Electric Light & Power Co.	Yukon river.	1.00
46	Jas. A. Ritchie.	"	1.00
49	H. Maitland Kersey.	Lewes river.	1.00
50	C. A. Macomber.	On Yukon river.	1.00
52	The Kerry Canadian Mill Co.	"	1.00
54	D. A. Matheson.	Yukon river.	1.00
55	"	"	1.00
57	The Joseph Ladue Gold Mining & Development Mining Co. of Yukon.	Stewart river.	1.00
59	The Canadian Yukon Lumber Co.	Yukon river.	2.50
60	Thompson-McNeil.	"	1.00
62	Maitland Kersey.	Lewes river.	1.00
63	"	"	1.00
64	Stanley McFadden.	Yukon river.	1.00
65	Klondike Mills Co.	"	1.00
66	Yukon Saw Mills Co.	"	1.00
67	McNabb & Hatheway.	"	1.00
68	Ruth Howard.	Crooked creek.	1.00
69	Yukon Saw Mill Company.	Moosehide creek.	1.00
70	C. Henry.	Lewes river.	1.00
71	Yukon Saw Mill Company.	Pelly river.	1.00
72	" " "	Lewes river.	1.00
73	" " "	"	1.00
74	A. Larose.	A tributary of the Lewes river.	1.00
75	Ruth Howard.	Stewart river.	1.00

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YUKON TERRITORY—*Concluded.*

T. B. No.	Name.	Locality.	Area.
			Sq. mi.
76	S. B. Reynolds	Yukon river	1 00
77	"	"	1 00
78	North American Transportation & Trading Co	Carlisle Creek	2 00
79	E. E. Andrews	Yukon river	2 50
80	M. King	Lake Bennett	1 00
83	R. Palmer	Lake Bennett	1 00
84	Yukon Saw Mill Co.	Tributary Lewes river	3 00
85	The Joseph Ladue Gold Mining & Development Co	Yukon river	1 00
86	Christian Sonnickson	Stewart river	1 00
87	The Joseph Ladue Gold Mining & Development Co	At junction of Yukon and White rivers	1 00
88	C. E. Miller	Lewes river	1 00
89	The Joseph Ladue Gold Mining & Development Co	Yukon river	1 00
90	The Joseph Ladue Gold Mining & Development Co	Pelly river	1 00
92	Yukon Saw Mill Co.	Tributary of the Lewes river	2 00
93	The Joseph Ladue Gold Mining & Development Co	Yukon river	1 00
94	Yukon Saw Mill Co.	Pelly river	1 00
95	"	"	1 00
98	Chas. R. Clark	Ballarat creek	1 00
100	Klondike Mills Co.	Yukon river	1 00
101	"	On a tributary of the Yukon river	1 00
102	The Canadian Yukon Lumber Co.	Yukon river	1 00
103	Klondike Mill Co	Selwyn river	1 00
104	North American Transportation & Trading Co	Cliff creek	3 11
105	D. H. Hume	Lake Laberge	1 00
106	Alexander Wilson	On a tributary of the Yukon river	1 00
107	The Klondike Mills Co	Island in Yukon river	1 00
108	"	Yukon river	1 00
109	O. W. Hobbs	A tributary of Reindeer creek	1 00
110	A. J. Prudhomme	Lewes river	1 00
111	M. L. Foley	"	1 00
112	"	"	1 00
113	"	Yukon river	1 00
114	The Canadian Yukon Lumber Co.	Stewart river	1 00
115	Klondike Mills Co.	Flat creek	5 00
116	"	Klondike river	5 00
117	E. Spencer	"	5 00
118	Klondike Mills Co	"	5 00
119	"	North Fork of the Klondike river	5 00
120	"	"	5 00
121	Raoul Rinfret	"	5 00
122	"	"	5 00
Total area			256 11

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TIMBER ON DOMINION LANDS IN MANITOBA, THE NORTH-WEST TERRITORIES, AND WITHIN THE RAILWAY BELT IN THE PROVINCE OF BRITISH COLUMBIA.

Licenses.

A license to cut timber can be acquired only at public competition. A rental of \$5 per square mile is charged for all timber berths excepting those situated west of Yale, in the province of British Columbia, for which the rental is at the rate of 5 cents per acre per annum.

In addition to the rental, dues at the following rates are charged :—

Sawn lumber, 50 cents per thousand feet B.M.

Railway ties, eight and nine feet long, $1\frac{1}{2}$ and $1\frac{3}{4}$ cents each.

Shingle bolts, 25 cents a cord.

All other products, 5 per cent on the sales.

A license is issued as soon as a berth is granted, but in unsurveyed territory no timber can be cut on the berth until the licensee has made a survey thereof.

Permits.

Permits to cut timber are also granted at public competition, except in the case of actual settlers, who require the timber for their own use.

Settlers and others may also obtain permits to cut up to 100 cords of wood for sale without competition.

The dues payable under a permit are from \$1.50 to \$3 per thousand feet B.M., for square timber and saw-logs ; from $\frac{1}{2}$ to $1\frac{1}{2}$ cents per lineal foot for building logs ; from $12\frac{1}{2}$ to 25 cents per cord for wood ; 1 cent for fence posts ; 3 cents for railway ties, and 20 cents per thousand for shingles, or 50 cents per cord for shingle bolts cut in British Columbia.

Homesteaders having no timber of their own are entitled to a permit free of dues to cut the following quantities :—

3,000 lineal feet of building logs, not to exceed 12 inches at butt end. If the timber is cut from dry trees 3,000 lineal feet of any diameter may be taken.

400 roof poles.

500 fence posts.

2,000 fence rails.

Homesteaders and all bona fide settlers whose farms may not have thereon a supply of timber, or who are not in possession of wood lots or other timbered lands, will be granted a free permit to take and cut dry timber for their own use on their farms for fuel and fencing.

A permit fee of 25 cents in each case is charged.

YUKON TERRITORY.

Licenses.

A license to cut timber on an area not exceeding five square miles in the above territory may be granted to the first applicant therefor upon payment of a bonus of not less than \$250 per square mile, but not more than five such berths will be granted to one individual or company, unless it can be shown to the satisfaction of the Commissioner of the Yukon Territory that an applicant requires additional timber for manufacturing purposes at the mill or mills which he has erected.

The licensee shall cause a survey to be made of the berth, when called upon by the Minister of the Interior to do so, and shall erect a saw-mill in connection therewith within a certain period to be fixed by the Minister of the Interior, and shall pay a stumpage of \$2 per thousand feet B.M. on the sales of the lumber manufactured from the timber cut, also dues at the rate of 50 cents per cord for cordwood, six cents each for ties, and ten per cent of all sales of all other products of the berth.

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Permits.

Permits to cut cordwood and ties in the Yukon Territory may be obtained from the Crown timber agent upon payment of a fee of \$5, and dues at the rate of 50 cents a cord for the former and 6 cents each for the latter.

Portable saw-mill owners may also obtain permits to cut within a specified district upon payment of an office fee of \$5, and dues at the rate of \$6 per thousand feet B.M.

MINING LANDS OTHER THAN COAL.

During the past fiscal year forty-seven entries were granted by the agents of Dominion lands in Manitoba and the North-west Territories.

In the Yukon Territory 28,878 placer claims, 3,971 quartz claims, 24,280 renewals and relocations were recorded up to July 1, 1902.

The returns for the fiscal year ending June 30, 1902, show that 4,354 entries for placer claims, 1,178 entries for quartz claims, 7,707 renewals and relocations were recorded during the year. The revenue collected from this source and for fees collected for registering other documents in connection with mining operations was \$256,256.10.

Up to July 1, 1902, 68,753 free miners' certificates were issued, producing a revenue of \$714,480.84. During the fiscal year 9,304 free miners' certificates were issued, and the revenue derived therefrom was \$118,312.02.

The following is a list of the government agencies whereat free miners' certificates were issued during the year and the number issued at each within the year:—

Dominion Land Agency at—

Calgary, N.W.T.....	15
Edmonton, N.W.T....	5
Lethbridge, N.W.T....	39
New Westminster, B.C..	3
Prince Albert, N.W.T....	2
Winnipeg, Man.....	20

Agencies within the Yukon Territory—

Clear Creek.....	77
Dawson.....	3,975
Dalton Trail.....	133
Dominion Creek....	828
Forty-Mile.....	124
Grand Forks.....	1,653
Gold Run.....	527
Hunker Creek.....	693
Hootalinqua.....	142
Selkirk.....	62
Sulphur Creek.....	210
Stewart River.....	292
White Horse.....	303

Other Agencies and Agents—

Ottawa, Ont., Department of the Interior....	141
Rat Portage, Ont., P. H. Austin.....	6
London, Eng., The High Commissioner's Office.....	2
Glasgow, Scotland, the Government Agent.....	10
Montreal, Que., the Collector of Customs.....	2
Vancouver, B.C., the Dominion Assay Office.....	12
Victoria, B.C., the Collector of Customs.....	28

Total..... 9,304

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DREDGING.

Leases now in force to dredge for minerals other than coal in the submerged beds of rivers in the Yukon Territory, cover 257.50 miles, and for the same purpose in the North-west Territories cover 906 miles.

SCHEDULE of Individuals and Companies who have secured dredging leases on certain streams in the Yukon District.

Lease No.	Name of Lessee.	Stream.	Number of Miles.
23	Michel Guerin	Klondike River	5
24	James J. Guerin	"	5
25	J. M. Guerin	"	5
26	F. E. Devlin	"	5
27	Edmund Guerin	"	5
40	James J. Guerin	Stewart River	5
41	Mary E. Guerin	"	5
42	James J. Guerin	"	5
48	F. J. White, assignee of F. J. Monroe	"	5
49	"	"	5
50	"	"	5
51	"	"	5
52	"	"	5
53	"	"	5
	Golden Crown Mining Company—		
140	Assignees of Elizabeth Rogers	"	5
141	"	"	5
142	"	"	5
143	"	"	5
144	"	"	5
145	"	"	5
146	Assignees of Jennie E. Smillie	"	5
147	"	"	5
148	"	"	5
149	"	"	5
150	"	"	5
151	"	"	5
152	Assignees of Lynn T. Leet	"	5
153	"	"	5
154	"	"	5
155	"	"	5
156	"	"	5
157	"	"	5
158	Assignees of N. C. Smillie	"	5
159	"	"	5
160	"	"	5
161	"	"	5
170	F. B. Vrooman, assignee of G. H. Rogers	Hootalinqua River	5
171	"	"	5
172	"	"	5
173	"	"	5
174	"	"	5
175	"	"	5
	Lewes River Mining and Dredging Co.—		
200	Assignees of J. A. McPherson	Lewes River	5
201	"	"	5
202	"	"	5
203	"	"	5
204	"	"	5
205	"	"	5
234	Geo. E. Keith	Stewart River	5
	The Klondike Consolidated Gold Fields (Ltd.).		
273	Assignees of F. X. Halder	"	5
274	"	"	5
275	D. F. Calahan, assignee of Cap. Thos. Howard	Indian River	2.50
Total number of miles			257.50

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SCHEDULE of Leases to dredge for Gold in Rivers, &c., in the North-west Territories.

Lease No.	Name of Lessee.	Stream.	Number of Miles.
1	The Saskatchewan Exploration Co. (Limited)		
2	Assignees of G. A. Drolet	North Saskatchewan River	30
3	H. D. Smith	Peace River	5
4	Wm. H. Roughsedge	"	5
5	W. P. Scarfe and C. D. Brindly, assignees of Chas. H. Brindly	"	5
6	Chas. H. Bower	"	5
7	Wm. McLaren	"	5
8	Jas. T. McLaren	"	5
9	Wm. P. Scarfe and Wm. E. Phin, assignees of John Love	"	5
10	W. L. Robertson, assignee of Wm. Robertson	"	5
11	Geo. Hillier	"	5
12	Thomas Black	"	5
13	G. Ford	"	5
14	Jas. A. Green	"	5
15	Geo. F. Cleveland	"	5
16	Alex. S. Robertson	"	5
17	Daniel Hector	"	5
18	Geo. Black	"	4
19	Isaac Cowie	"	5
20	R. H. Lanyon assignee of F. W. Kippel	North Saskatchewan River	5
21	D. S. Keith	"	5
22	Geo. E. Keith	"	5
23	G. A. Drolet, assignee of N. C. Smillie	Peace River	5
24	"	"	5
25	"	"	5
26	"	"	5
27	"	"	5
28	"	"	5
29	"	"	5
30	"	"	5
31	"	"	5
32	"	"	5
33	"	"	5
34	"	"	5
35	Discoverers Finance Corporation (Ltd.)—		
36	Assignees of Jas. Gibbens	North Saskatchewan River	5
37	Jas. M. Douglass	"	5
38	F. A. Osborne	"	5
39	J. A. McDougall	"	5
40	R. Secord	"	5
41	W. J. Walker	"	5
42	J. H. Gritton	"	5
43	"	"	5
44	"	"	5
45	"	"	5
46	"	"	5
47	G. A. Drolet	"	5
48	"	"	5
49	"	"	5
50	"	"	5
51	"	"	5
52	"	"	5
53	Discoverers Finance Corporation (Ltd.)		
54	Assignees of A. E. Hogue	"	5
55	"	"	5
56	"	"	2
57	J. J. Codville	Muddy Creek	5
58	Chas. R. Tryon	"	5
59	I. B. Forbes, assignee of Wm. P. Scarfe	Smoky River	5
60	Wm. H. Roughsedge	"	5
61	W. H. Blake	"	5
62	A. J. Oliver	"	5
63	Thos. Black	"	5
64	Alex. Mackenzie	"	5
65	F. E. Gauthier	"	5
66	W. E. Phin	"	5

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SCHEDULE of Leases to dredge for gold in Rivers, &c.—Continued.

Lease No.	Name of Lessee.	Stream.	Number of Miles.
90	Hume Blake	Little Smoky River	5
91	A. J. Oliver	"	5
93	John J. Codville	Mountain River	5
94	John Love	"	5
95	E. M. Roughsedge	Muddy Creek	5
96	H. N. Ruttan	Boundary Creek	5
97	Fred Murray O'Meara	"	5
98	F. C. Robinson	"	5
99	Wm. Hume Blake	Rat Creek	5
100	Chas. R. Tryon	"	5
101	W. L. Robertson	"	5
102	Wm. H. Roughsedge	Peace River	5
103	"	"	5
104	"	"	5
105	"	"	5
106	"	"	5
107	N. D. Beck	North Saskatchewan River	5
108	The Alberta Gold Dredging Syndicate, assignees of Isaac Cowie	"	5
109	J. A. Mercier	"	5
110	"	"	5
111	"	"	5
112	"	"	5
113	"	"	5
114	E. C. Emery	"	5
115	Chas. B. Beck	"	5
119	The Alberta Gold Dredging Syndicate, assignees of I Cowie	"	5
120	Assignees of I Cowie	"	5
121	"	"	5
122	"	"	5
123	The Alberta Gold Dredging Syndicate, assignees of J. C. P. Brown	"	5
125	N. D. Beck	Peace River	5
126	"	"	5
127	"	"	5
128	"	"	5
129	"	"	5
130	"	"	5
143	Chas. H. Bower	"	5
144	"	"	5
145	"	"	5
146	"	"	5
147	"	"	5
176	F. P. Hobson, assignee of E. A. Braithwaite	North Saskatchewan River	5
177	Chas. D. Brindly	"	5
183	G. A. Glines	Clear Creek	5
184	Albert MacLaren	Peace River	5
185	Henry MacLaren	"	5
186	Henry MacLaren	"	5
187	Daniel MacLaren	"	5
188	Daniel MacLaren	"	5
189	John A. MacLaren	Battle River	5
190	John A. MacLaren	"	5
191	Messrs. A. Charette, and D. B. and H. Rochester	Cedar River	5
192	The North-west Gold Dredging Co. (Ltd.), assignees of A. Woods, Jr.	North Saskatchewan River	5
193	The North-west Gold Dredging Co. (Ltd.), assignees of A. Woods, Jr.	"	5
194	Geo. E. Casey	"	5
195	Geo. E. Casey	"	5
196	C. F. Hibbert	"	5
197	C. F. Hibbert	"	5
198	The North-west Gold Dredging Co. (Ltd.), assignees of J. G. Tipton	"	5
199	" " J. G. Tipton	"	5
200	" " D. Baird	"	5
201	" " D. Baird	"	5

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SCHEDULE of Leases to dredge for gold in Rivers, &c.—*Concluded.*

Lease No.	Name of Lessee.	Stream.	Number of Miles.
202	The North-west Gold Dredging Co. (Ltd.), assignees of M. E. Weever.	North Saskatchewan River	5
203	" " M. E. Weever.	" "	5
204	" " G. P. Spittal.	" "	5
205	" " G. P. Spittal.	" "	5
206	" " J. O. Hibbard.	" "	5
207	" " J. O. Hibbard.	" "	5
208	" " C. M. Farley.	" "	5
209	" " C. M. Farley.	" "	5
210	" " M. Johnston.	" "	5
211	" " M. Johnston.	" "	5
212	" " E. S. Leatham.	" "	5
213	" " Thos. Dunderdale.	" "	5
214	" " E. A. Walberg.	" "	5
215	" " E. A. Walberg.	" "	5
216	" " F. H. Markey.	" "	5
217	" " F. H. Markey.	" "	5
218	" " Fred. Cook.	" "	5
219	" " Fred. Cook.	" "	5
220	" " Thos. Patterson.	" "	5
221	" " Thos. Patterson.	" "	5
222	" " R. M. MacLeod.	" "	5
223	" " R. M. MacLeod.	" "	5
224	" " A. E. Fairbairn.	" "	5
225	" " A. E. Fairbairn.	" "	5
226	" " H. Hopp.	" "	5
227	" " H. Hopp.	" "	5
228	" " H. Webb.	" "	5
229	" " H. Webb.	" "	5
230	" " W. D. Morris.	" "	5
231	" " W. D. Morris.	" "	5
232	" " W. F. Powell.	" "	5
233	" " W. F. Powell.	" "	5
234	" " W. H. McAuliffe.	" "	5
235	" " W. H. McAuliffe.	" "	5
236	" " G. H. Rogers.	" "	5
237	" " G. H. Rogers.	" "	5
238	" " F. Taylor.	" "	5
239	" " F. Taylor.	" "	5
240	" " W. H. Hurdman.	" "	6
241	" " W. H. Hurdman.	" "	5
242	" " J. H. Higginson.	" "	5
243	" " J. H. Higginson.	" "	5
244	H. H. Cameron.	" "	5
245	H. H. Cameron.	" "	5
246	C. G. Hurdman.	" "	5
247	C. G. Hurdman.	" "	5
248	R. A. McCormick.	" "	5
249	R. A. McCormick.	" "	5
250	C. D. Spittal.	" "	5
251	C. D. Spittal.	" "	5
252	Messrs. D. B. and G. H. Rochester, and H. Charette.	Cedar Lake.	5
253	T. H. Brooks.	Little Red River.	5
Total number of miles.			406

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SCHEDULE of Individuals or Companies to whom Hydraulic Mining Leases have
been issued.

Lease No.	Names of Lessees.	Number of Miles.	Locality.
1	The Klondike Government Concession, (Ltd.) assignees of R. Anderson.....	2 50	Hunker creek.
2	J. J. Doyle <i>et al</i>	0 68	Bonanza creek.
4	F. X. Halder, assignee of E. Griffith <i>et al</i>	5 00	Ancient Bed of the Stewart river.
5	Bonanza Creek Hydraulic Concession, (Ltd) assignees of Messrs. Bronson & Ray.....	2 50	Bonanza creek.
6	The Dome (Yukon) Gold Mining Company (Ltd)	10 00	Australia creek.
7	The British Columbia Gold Fields of the Klondike. (Ltd.) assignees of Messrs. Gregor & Frost.....	2 50	Indian river.
8	J. J. Doyle <i>et al</i>	0 68	Bonanza creek.
9	E. Weinham, <i>et al</i> , assignees of C. A. Matson <i>et al</i>	1 50	"
10	The Quartz Creek (Yukon) Syndicate, (Ltd.) assignees of J. W. Boyle.....	3 33	Quartz creek.
14	A. W. Williams,.....	2 00	Hunker creek.
16	Wm. H. Scroggie, assignee of E. B. Scroggie....	5 00	Scroggie creek.
17	The British Canadian Gold Fields of the Klondike, (Ltd.) assignees of N. H. Johnson....	5 00	Cassiar creek.
18	H. B. McGiverin, assignee of J. W. Boyle....	6 72	Klondike river.
19	Messrs. McDougall <i>et al</i> , assignees of A. B. Crueger.....	2 25	Indian river.
20	A. B. Palmer, D. Doig and R. H. Palmer, assignees of E. Ensel.....	3 00	Eureka creek.
21	Thos. Shaughnessey.....	4 13	Shaughnessey creek.
22	The Gold River Placer Mining Co., (Ltd.) assignees of Jas. A. McMullen.....	1 00	Dominion creek.
23	E. W. Mutch.....	2 50	Indian river.
24	F. E. Rolfe.....	1 94	"
25	O. S. Lanning.....	2 50	"
26	L. S. House.....	5 00	Ballarat creek.
29	Alaska and North-west Exploration Co. (Ltd.).	1 08	Ten Mile creek.
30	North American Transportation and Trading Co. (Ltd.).....	3 38	Miller creek.
32	Messrs. Washburn & Ritchie, assignees of F. W. Kramer.....	5 00	Kirkman creek.
33	Messrs. Washburn & Ritchie, assignees of C. J. Herman.....	4 78	Gold Bottom creek.
34	Thos. D. Gillies.....	5 00	Russell creek.
35	North American Transportation and Trading Co., (Ltd.) assignees of R. L. Word.....	2 50	Indian river.
36	D. F. Calahan, assignee of Capt. Thos. Howard	2 50	"
39	O'Connell <i>et al</i>	2 50	Ancient Bed Stewart river.
40	The Klondike Consolidated Gold Fields (Ltd.).	3 00	Lewes river.
Total mileage.....		99 47	

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The total revenue received for dredging leases in the Yukon Territory up to July 1, 1902, was \$144,010.50, and for the fiscal year, \$4,355.

The total revenue received for the rent of the leaseholds in the North-west Territories, up to July 1, 1902, was \$23,376.81, and for the past fiscal year, \$3,114.10.

The total sum collected up to July 1, 1902, for royalty on the gross output of placer claims in the Yukon Territory, after deducting the exemption allowed by the regulations, was \$2,524,177.45. Of this amount the sum of \$331,532.04 was collected during the last fiscal year.

The royalty was collected at the following places :—

Dawson....	\$ 113,426 84
Dominion....	25,748 35
Eureka.....	276 62
Forty-Mile....	599 00
Grand Forks....	131,087 03
Gold Run.....	25,809 42
Hunker.....	26,420 80
Sulphur.....	7,726 73
White Horse	342 00
Total.....	\$ 331,436 79
Infringement on Government claim.....	95 25
Grand total.....	\$ 331,532 04

The gold was taken from the following creeks, gulches and hills :—

American Gulch, Adams' Hill, Bonanza Creek, Bear Creek, Big Salmon, Cheechaga Hill, Dominion Creek, Eldorado Creek, Fox Gulch, French Hill, French Creek, Gold Run Creek, Gold Bottom Creek, Gold Hill, Hunker Creek, Little Skookum, Last Chance, Monte Christo, Magnet Gulch, Skookum Creek, Sulphur Creek, Trail Creek, Victoria Creek, Eureka, Livingstone.

MINERALS—BRITISH COLUMBIA.

The precious metals within the railway belt in the province of British Columbia are the property of the province, and the base metals are owned by the government of Canada. All the minerals, however, are administered by the provincial government under the mining laws of that province. This is in accordance with an arrangement between the government of Canada and the provincial government of British Columbia, and ratified by orders of His Excellency the Governor General in Council, dated February 11 and 28, 1890. This agreement may be terminated at any time by either government. Under this agreement 2,639.62 acres have been transferred to the provincial government, and the total amount received therefor was \$7,655.78.

QUARTZ REGULATIONS.

The following is a synopsis of the regulations now in force for the disposal of quartz mining claims on Dominion lands in Manitoba, the North-west Territories and in the Yukon Territory :—

Every person eighteen years of age and over, but not under, and every joint stock company holding a free miner's certificate, may obtain an entry for a mining location.

A free miner's certificate is granted for one or more years, not exceeding five, and is not transferable. The fee for a free miner's certificate for an individual is \$10 ; and for a free miner's certificate to a joint stock company, from \$50 to \$100, according to the nominal capital of the company.

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The holder of a free miner's certificate who has discovered mineral in place, may locate a claim not exceeding 1,500 feet long by 1,500 feet wide, by marking it with two legal posts, one at each end, on the line of the lode, or vein, and marking out the line between them. Upon each post shall be marked the name of the claim, the name of the person locating and the date, and the number of feet lying to the right and left of the line.

The claim shall be recorded with the mining recorder of the district within which it is situated within fifteen days after the location thereof, if located within ten miles of the office of the recorder; one additional day shall be allowed for such record for every additional ten miles or fraction thereof. In the event of a claim being more than 100 miles from a recorder's office, and situated where other claims are being located, the free miners, not less than five in number, may appoint a free miner's recorder; but if the latter fails within three months to notify the nearest government mining recorder of his appointment, the claims which he may have recorded will be cancelled. The fee for recording a claim is \$5.

An expenditure of not less than \$100 per year must be made on the claim, or a like amount paid to the mining recorder in lieu thereof. When \$500 has been expended, or paid, in connection with the location, the locator may, upon having a survey thereof made and upon complying with certain other requirements, purchase the land at the rate of \$1 per acre cash.

A location for the mining of iron and mica not exceeding 160 acres in area may be granted, provided that should any free miner obtain a location which subsequently is found to contain a valuable mineral deposit other than iron or mica, his right in such deposit shall be restricted to the area prescribed for other minerals, and the remainder of the location shall revert to the Crown.

The patent for a mining location shall reserve to the Crown forever whatever royalty may hereafter be imposed on the sales of the products of all mines therein, and the same royalty shall be collected on the sales which may be made prior to the issue of the patent, such royalty, however, not to exceed 5 per cent.

The Minister of the Interior may grant locations for the mining of copper in the Yukon Territory, each location to consist of an area not exceeding 160 acres in a square block. The boundary lines of each location shall be due north and south and due east and west, and not more than one area shall be granted to any one person within a district of ten miles. The grant of such location for the mining of copper shall not give to the grantee any rights to any other minerals, except minerals that are combined or mixed with copper or copper ore, but in no case to include free milling gold or silver.

There shall be paid to the government on the gross output of copper from any such location a royalty to be fixed by the Minister of the Interior, not exceeding five per cent on such gross output.

The Minister of the Interior may make such rules and regulations and impose such conditions for ensuring the development of any such area, and securing the payment of the royalty as he may consider necessary in that behalf.

The fee to be paid to the gold commissioner or a mining recorder for an entry for a copper mining location of 160 acres shall be \$20, and the same fee shall be charged for each renewal of an entry.

PLACER MINING IN THE YUKON TERRITORY.

Claims are creek, gulch, river and hill claims, the length on the base line or general direction of creek or river not to exceed 250 feet, the width being from 1,000 to 2,000 feet. Bench claims are 250 feet square.

Claims are marked by two legal posts, one at each end, bearing notices. Entry must be obtained within ten days if the claim is within ten miles of the recorder's office. One extra day allowed for each additional ten miles or fraction.

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The person or company staking a claim must hold a free miner's certificate.

The discoverer of a new mine is entitled to a claim 1,000 feet in length, and if the party consists of two, 1,500 feet altogether, on the output of which no royalty shall be charged; the rest of the party ordinary claims only.

Entry fee, \$15. Royalty at the rate of two and one-half per cent on the value of the gold shipped from the Yukon Territory to be paid to the comptroller. Gold to be valued at \$15 an ounce.

No free miner shall receive a grant of more than one mining claim on each separate river, creek or gulch, but the same miner may hold any number of claims by purchase, and free miners may work their claims in partnership, by filing notice and paying a fee of \$2. A claim may be abandoned and another obtained in the same creek, gulch or river by giving notice and paying a fee.

Work must be done on a claim each year to the value of at least \$200, or in lieu of work payment may be made to the Mining Recorder each year for the first three years of \$200, and after that \$400 for each year.

A certificate that work has been done or fee paid, must be obtained each year; if not, the claim shall be deemed to be abandoned, and open to occupation and entry by a free miner after three months.

The boundaries of a claim may be defined absolutely by having a survey made, and publishing notice in the Yukon Official *Gazette*.

REGULATIONS RE DREDGING, YUKON TERRITORY.

A free miner may obtain a lease of an unbroken extent of five miles of a river, but not more than six such leases will be issued in favour of an individual or company.

The lease shall be for a term of 20 years, renewable from time to time thereafter in the discretion of the Minister of the Interior. The lessee's right of mining and dredging shall be confined to the submerged bed or bars in the river below low water mark, that boundary to be fixed by its position on August 1, in the year of the date of the lease.

The lease shall be subject to the rights of all persons who have received or who may receive entries for claims under the placer mining regulations.

The lessee shall, within two years from the date of the lease, have at least one dredge in operation upon the portion of the river leased to him, not exceeding 30 miles, and shall, within six years from the date of such lease have one dredge in operation upon each five miles of the river under lease to him.

The rental is \$100 for the first year for each mile of river leased, and \$10 per mile for each subsequent year.

The lessee shall pay to the Crown a royalty of 10 per cent on the output in excess of \$15,000 for each five miles of river leased; but the lessee under one lease shall not be entitled to the exemption as to royalty where the dredge or dredges used by him have been used in dredging by another lessee, or in any case in respect of more than 30 miles.

The lessee is permitted to cut free of all dues on any land belonging to the Crown such timber as may be necessary for the purposes of his lease, but such permission shall not extend to timber which has been or may be granted to other persons or corporations.

The regulations also provide that the lessee shall not interfere with free navigation of the river nor with the construction of roads, ways, bridges, drains or other public works. It is also provided that the lessee shall not transfer a lease without the consent in writing of the Minister of the Interior.

REGULATIONS RE DREDGING, MANITOBA AND N.W. TERRITORIES.

The regulations now in force provide that a free miner can obtain two leases of five miles each. The lease is for a term of twenty years, renewable from time to time thereafter in the discretion of the Minister of the Interior.

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The lessee's right is confined to the submerged bed or bars of the river below low water mark, and is also subject to the rights of all persons who have received or who may receive entries for bar diggings or bench claims, except on the Saskatchewan river, where the lessee may dredge to high water mark on each alternate leasehold.

The lessee shall have a dredge in operation within one year from the date of the lease for each five miles leased to him. If, however, a company or individual has obtained more than one lease, one dredge for each fifteen miles or portion thereof, will be accepted. The rental is \$10 per annum for each mile leased. The lessee shall pay to the Crown a royalty of 2½ per cent on the output after it exceeds \$10,000.

The lease provides that the lessee shall not interfere in any way with the navigation of the river or with any roads, ways, bridges, drains and other public works and improvements now existing or which may be made in the future.

The lease shall provide that any one who has or who may receive entry under the mining regulations, shall be entitled to run tailings into the river at any point thereon, also to mine two feet below the surface of the water at low water mark by putting in wing dams.

Provided that it shall not be lawful for such person to construct a wing dam within one thousand feet from the place where any dredge is being operated nor to obstruct or interfere in any way with the operation of any dredge.

HYDRAULIC MINING—YUKON TERRITORY.

Locations may have a frontage of from one to five miles, as may be decided by the Minister of the Interior, and a depth of one mile, but where such location is situated in a valley, its depth may extend to the limits of the valley, if so ordered by the Minister of the Interior.

To the person who files with the Commissioner of the Yukon Territory, at Dawson, an application for a location previously prospected by him, or his authorized agent at the time the location was prospected, a lease will be issued, provided he is the first qualified applicant therefor.

No application for a lease for hydraulic mining purposes shall be entertained for any tract which includes within its boundaries any placer, quartz, or other mining claim under the Regulations in that behalf, or in the immediate vicinity of which placer, quartz or other mining claims have been discovered, or which are being profitably operated.

It is necessary, however, for the applicant to furnish the department with a report from the Gold Commissioner to the effect that there are no placer, quartz or other mining claims within the location applied for; that it has been proved to his satisfaction, that the applicant himself, or a person acting for him, was upon and actually prospected prior to the date of the application, the ground included in the location; and that the ground included in the location is not being worked and is not suitable to be worked under the Regulations governing placer mining. No lease will be issued unless recommended by the Commissioner.

In addition to the above it will be necessary for an applicant for a lease for hydraulic mining purposes, to file in the Department of the Interior a declaration made by a mining engineer, or other competent person, to the satisfaction of the Minister of the Interior, that the location applied for is suitable for hydraulic mining purposes; that there is a sufficient quantity of water available with which to successfully operate the location; and that there is a sufficient dumping ground upon which to deposit the tailings produced from his operations.

Before a lease is issued it is necessary for the applicant to obtain a free miner's certificate and file in the Department of the Interior at Ottawa a Dominion land surveyor's plan of the location. The term of the lease is twenty years, and the rental \$150 for each mile of frontage.

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The same royalty shall be paid upon the output of gold as is provided or may hereafter be provided in the case of placer claims, the royalty to be paid in the manner provided in the regulations governing placer mining.

The lessee is required to expend in operating his location not less than \$5,000 during each year from the date of his lease.

The lessee may cut, free of dues, such of the timber on a location as may be necessary for working the same in connection with his mining operations, but not for sale or traffic, and provision is made that the Commissioner of the Yukon Territory may grant a permit to any person to cut and remove from a location cordwood for his own use when such cordwood cannot otherwise be had within reasonable distance, but no such permit shall convey the right to cut or remove wood required by the lessee for his mining operations.

PETROLEUM.

By an Order in Council, dated May 31, 1901, provision was made that on and after July 1 of that year all unappropriated lands of the Crown in Manitoba, the North-west Territories and within the Yukon Territory, would be open to prospecting for petroleum purposes, and that should oil in paying quantities be discovered, and should such discovery be established to the satisfaction of the Minister of the Interior, an area, not exceeding 640 acres of land, including and surrounding the land upon which the discovery has been made, will be sold to the person or company making such discovery at the rate of \$1 an acre, provided the lands are available. Provision is also made for the collection of royalty on the sales of the petroleum at such rate as may from time to time be specified by Order in Council.

COAL MINING LANDS.

The number of applications received during the year was 978. The revenue for the year derived from the sale of coal lands was \$16,270.32. The total area of coal lands sold up to July 1, 1902, was 37,300.80 acres, and the total amount received therefor was \$283,113.32.

The regulations for the disposal of Dominion lands containing coal were issued under the authority of an Order in Council, dated May 19, 1902. These amended regulations provide that an area, not exceeding 320 acres of land, may be sold to one individual or company at the rate of \$10 an acre unless the coal is anthracite, in which case the price is \$20 an acre. Payment may be made in cash or scrip at the time of the sale, or payment may be made of one-quarter of the purchase price only, and the balance in three equal annual instalments, with interest at the rate of five per cent per annum upon the unpaid balances. Scrip, however, cannot be accepted unless payment is made in full at the time of the sale. A fee of \$5 must accompany each application to purchase, which will be applied on account of payment for the land if the sale is carried out, and will be refunded if the land applied for is not available, but not otherwise. Royalty at the rate of ten cents per ton of 2,000 pounds will also be collected on the output of the mine.

If the surface rights of the land applied for are not the property of the Crown, a location containing an area not exceeding 320 acres may be reserved for an applicant to prospect thereon for coal, upon payment of a fee of \$10, and upon making an arrangement with the owners of the surface rights. Such reservation, however, cannot be made if the surface rights of the land have not been disposed of.

Permits may also be issued to mine coal for domestic purposes, but the area covered by a permit must not exceed three acres. Rental at the rate of \$5 an acre per annum is charged for an area of one acre or more, and if the area is less than one

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acre the rental is \$5. A royalty is also collected of twenty cents per ton for anthracite coal, fifteen cents per ton for bituminous coal and ten cents per ton for lignite coal.

In the Yukon Territory applications for coal lands are made to the Crown Timber and Land Agent, who is permitted to sell such lands, subject to the approval of the Commissioner, at the rate of \$20 per acre if the coal is anthracite, and \$10 per acre for any other class of coal. Not more than 320 acres of coal land can be sold to one applicant. The conditions of payment are the same as for other Dominion lands containing coal. A royalty at such rate as may from time to time be specified by the Governor General in Council will be levied and collected on the gross output of the mine. The purchaser must develop the location within two years from the date of the sale, and have a survey thereof made, and a patent will not be issued until satisfactory proof is furnished that the above conditions have been complied with.

IRRIGATION.

During the year nine applications for authority to divert water for irrigation and other purposes were received at the department, and fourteen applicants received permission to construct works in accordance with the provisions of the North-west Irrigation Act. One hundred and fifteen (115) licenses have been issued up to date to divert water.

The North-west Irrigation Act, under which the applications referred to in the preceding paragraph were made, was assented to by Parliament on June 13, 1898. The provisions of the Act and the regulations made thereunder may be briefly outlined as follows :—

An applicant for permission to construct works to divert water, shall file with the Commissioner of Public Works at Regina, a memorial setting forth the particulars with respect to the application, and a plan of the proposed work. He shall also give notice of such filing in some newspaper published in the neighbourhood, to be named by the commissioner, not less than once a week for a period of thirty days.

So soon as these conditions have been complied with, the Minister of the Interior authorizes the construction of the works within a certain period. Upon the completion of the works an inspection thereof is made by the chief engineer and surveyor of the Department of Public Works of the North-west Territories, and upon receipt of a certificate from him that they have been built in accordance with the plans and specifications submitted by the applicant, a license is issued in his favour by the Minister of the Interior upon payment of a fee of \$10. It is, however, necessary that the applicant shall furnish proof that he is the owner of the land to be irrigated, or that he has arranged with the owners thereof to furnish them with water, before a license is issued in his favour.

The Minister of the Interior may, if he sees fit, waive the necessity for filing the plans referred to and may require the applicant to file a memorial only.

GRAZING.

Leases for grazing purposes are issued for a term of twenty-one years, and the rental is at the rate of two cents an acre per annum, payable half-yearly in advance.

Lands included in a grazing lease may be withdrawn for homestead entry, sale or railway purposes, but no rental is charged on such lands from the date upon which they are withdrawn from the lease.

A lessee of grazing lands is not entitled to the hay thereon, but he may, upon application to the agent of Dominion Lands, obtain each year the first permit to cut on his leasehold whatever quantity of hay he may require for his own use, free of dues, the department reserving the right to issue permits to other applicants to cut hay thereon.

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HAY.

A settler in the vicinity of unoccupied Dominion lands may obtain a lease to cut hay on an area thereof not exceeding forty acres. The term of the lease is five years and the rental twenty-five cents an acre per annum, payable in advance.

No one is prevented by the department from cutting hay without a permit, but any one desiring to have a certain area of land containing hay reserved for him may take out a permit covering the same.

Applications for permits to cut hay are made after January 1 in each year to the agent of Dominion lands in whose agency the land containing the hay is situated, and permits are issued on and after April 1 following, upon payment of a fee of fifty cents and the dues hereinafter prescribed.

If before April 1 more than one application is received for a permit covering the same tract of land, the agent, if he cannot arrange a division of the land to suit the applicants may post a notice in his office calling for tenders for the purchase of the hay, and the permit is awarded to the person offering the highest cash bonus.

No hay shall be cut prior to a date to be fixed each year by the Minister of the Interior.

The dues chargeable for permits to actual settlers who require the hay for their own use are ten cents an acre or ten cents per ton, and to all other persons the rates are fifty cents an acre or fifty cents per ton, payable in advance.

GRAZING—YUKON TERRITORY.

The term of a grazing lease in the Yukon Territory is ten years, and the rental \$100 a square mile. In unsurveyed territory the applicant shall establish by legal survey one corner of the ground applied for, and lay off the area from that corner.

HAY—YUKON TERRITORY.

The term of a hay lease in the Yukon Territory shall be ten years, and the rental fifty cents an acre per annum. A survey of the land to be made by the lessee at his own expense. The ground covered by the lease to be open to sale and entry for mining purposes, but no rental to be charged from the date of such sale or entry.

HAY PERMITS IN THE YUKON TERRITORY.

Permits to cut hay may be issued by the Crown timber and land agent, on payment of a fee of \$2 and dues at the rate of \$1 per ton.

GRAZING PERMITS—YUKON TERRITORY.

Permits may be obtained to graze stock on the public grazing reserves made at all important points, subject to the payment of five cents per day for each head of cattle.

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GRAZING LANDS.

Total number of Ranches on Dominion Lands, leased or authorized to be leased, up to the 1st day of July, 1902, was 908, covering an area of 1,272,847.66 acres.

The following schedule shows the names and addresses of the lessees, the numbers of their ranches, and the area covered by each lease:—

Ranch No.	Name.	Address.	Area in Acres.
141	Peter McLaren	Perth, Ont.	7,500.00
318	F. W. Peacock	Maple Creek, Assa	478.29
327	Peter Byrne	Prince Albert, Sask.	480.00
329	Lachlan Collie	Fairview, Man.	306.50
333	R. G. Robinson	Calgary, Alta.	1,120.00
334	Wm. Collie	Erinview, Man.	160.00
341	Gagen & a Court	Mooselaw, Assa	5,600.00
344	A. T. Wallace	Maple Creek, Assa	1,920.00
348	Leeson & Scott	Morley, Alta.	1,920.00
349	John G. Collins	"	960.00
356	Wm. Grahame	"	477.00
368	Thos. Johnson	Maple Creek, Assa	1,280.00
369	John and Walter Potts	Morley, Alta.	741.00
374	L. C. Brown	Dunmore, Assa	480.00
377	John Cheeseman	Maple Creek, Assa	320.00
378	John R. Craig	Macleod, Alta.	2,560.00
380	R. G. Robinson	Calgary, Alta.	800.00
398	John Harvey	Maple Creek, Assa	597.50
401	J. P. Tully	Strathclair, Man.	320.00
402	Chas. E. Stevens	C. of W. B. Williams, Winnipeg, Man.	160.00
405	G. W. Quick	Maple Creek, Assa	1,200.00
408	J. S. Rose	Battleford, Sask.	2,560.00
414	A. T. Wallace	Maple Creek, Assa	640.00
419	A. T. Wallace	"	1,240.00
424	Mrs. Mary Cumberland	Stella, Ont.	980.00
426	F. W. Fisher	Lundyville, Man.	289.00
427	H. A. Sibbald	Morley, Alta.	320.00
431	H. Couture	Battleford, Sask.	1,920.00
432	Henry Hamilton	Walsh Station, Assa	2,240.00
433	Ed. Heffer	Maple Creek, Assa	320.00
439	Wm. R. Abbott	"	640.00
451	Thos. Monkman	Winnipeg, Man.	445.00
452	Lethbridge Sheep Ranch Co.	Lethbridge, Alta.	2,080.00
454	Chas. W. May	Saskatoon, Assa	160.00
457	Wm. Turner	Fletwode, Assa	2,082.00
459	F. J. O'Hara Armstrong	Whitewood, Assa	1,742.00
460	L. Q. Coleman	Morley, Alta.	1,286.00
463	Wm. Collie	Erinview, Man.	128.90
465	J. A. W. Fraser	Jumping Pond, Alta.	1,280.00
468	J. W. & F. W. Ings	High River, Alta.	720.00
472	R. G. Robinson	Calgary, Alta.	3,840.00
479	John Cheeseman	Maple Creek, Assa	160.00
485	John Harvey	"	320.00
486	John Lawrence, sr.	"	1,440.00
490	B. Cheeseman	"	640.00
492	Finel Griesback	Gleichen, Alta.	77.00
494	Jas. Martin	Maple Creek, Assa	640.00
500	Thos. Hourd	Fletwode, Assa	1,313.00
503	Donald Gunn	Whitesand, Assa	1,280.00
505	Philip Williams	Maple Creek, Assa	640.00
506	R. J. Christie	Hatfield, Alta.	80.00
510	Cornelius Peters	Chortitz, Man.	160.00
511	Cheeseman Bros.	Maple Creek, Assa	640.00
514	Edward Henry	Fletwode, Assa	1,280.00
516	Wm. Stothers	Maple Creek, Assa	960.00
520	F. J. O'Hara Armstrong	Whitewood, Assa	960.00
521	Jonathan Gillis	"	1,853.00
524	Wm. Sinclair	Yorkton, Assa	320.00
525	Patrick Burns	Calgary, Alta.	640.00
527	H. M. Morris-Rende	Whitewood, Assa	619.00
528	Wm. Wilkins	Carlyle, Assa	160.00

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LESSEES of Grazing Lands—*Continued.*

Ranche No.	Name.	Address.	Area in Acres.
537	F. Shackleton.	High View, Assa.	647 00
540	L. C. Brown.	London, S. W., 40 Cadogan Place.	480 00
543	D. McIntosh.	Whitewood, Assa.	288 00
546	C. Duck.	Chortitz, Man.	166 00
547	R. E. Bonar.	High View, Assa.	640 00
549	P. Lechat.	Battleford, Sask.	640 00
552	G. & J. Blackwood.	Whitewood, Assa.	720 00
553	A. E. E. Dunn.	Battleford, Sask.	480 00
554	H. Munro.	Parkin P. O., Wapella, Assa.	640 00
555	T. J. Armstrong.	High View, Assa.	320 00
556	S. Jonsson.	Westbourne, Man.	160 00
557	E. Greer.	Innisfail, Alta.	160 00
558	W. T. Warner.	Fletwode, Assa.	730 00
562	J. G. Farr.	Maple Creek, Assa.	320 00
566	T. Minaugh.	Whitewood, Assa.	1,063 00
571	R. J. Christie.	Yarrow, Alta.	160 00
572	A. E. Lannon.	Innisfail, Alta.	640 00
583	Wm. McMillan.	High View, Assa.	648 00
584	Frank H. Hound.	Montgomery, Assa.	800 00
585	Thos. Kerr.	High View, Assa.	640 00
586	David Wilson.	Orange Ridge, Man.	640 00
589	D. A. Coleman.	Whitewood, Assa.	828 00
592	E. H. Butterell.	229 St. James St., Montreal, Que.	160 00
595	James Quigley.	Cochrane, Alta.	639 00
600	James Tooke.	High View, Assa.	640 00
601	William Archibald.	Parkin, Assa.	1,653 00
604	The Boyd Ranching Co. (Ltd.).	Carberry, Man.	4,880 00
606	Robert B. Warner.	Fletwode, Assa.	975 00
608	H. M. Morris-Read.	Whitewood Station, Assa.	640 00
615	B. Long.	Clare, Assa.	160 00
616	Mrs. A. A. Doig.	Kennell, Assa.	160 00
619	Chas. Blair.	Maple Creek, Assa.	2,195 00
620	W. R. Jefferson.	Carlyle, Assa.	480 00
622	G. L. Weatherald.	Glen Adelaide, Assa.	320 00
628	Donald Murray.	High View, Assa.	325 00
632	Sanford McNeil.	Arcola, Assa.	320 00
640	Wm. Boyd.	Fairmede, Assa.	320 00
643	Thos. Kerr.	High View, Assa.	160 00
647	G. F. Hirst.	Scandinavia, Man.	320 00
649	Wm. McCaw.	Fitz Maurice, Assa.	640 00
652	A. Cumberland.	Maple Creek, Assa.	320 00
658	Geo. Grassick.	Weyburn, Assa.	640 00
665	Ricardo & Bevan.	Calgary, Alta.	303 00
667	Wm. McKinnon.	Neepawa, Man.	320 00
680	Jos. Duhaime.	Battleford, Sask.	800 00
681	J. T. Thompson.	Arcola, Assa.	640 00
686	Samuel Whiting.	Maple Creek, Assa.	160 00
689	Donald McKenzie.	Whitewood, Assa.	320 00
690	Wm. Moore.	Maple Creek, Assa.	640 00
694	Hugh Munro.	Poplar Grove, Wapella, Assa.	640 00
695	Wm. Brownlee.	High View, Assa.	800 00
699	J. H. McNeil.	Carlyle, Assa.	320 00
705	R. W. Cowan.	Big Hill Creek, Cochrane, Alta.	1,120 00
706	Jos. Lawford.	Percy, Assa.	640 00
708	Jos. Burgess.	Fletwode, Assa.	480 00
709	Thos. Harkness.	Fletwode, Assa.	960 00
713	J. T. Krahn.	Hochstadt, Man.	160 00
714	J. A. W. Fraser.	Jumping Pond, Calgary, Alta.	480 00
715	Gordon & Ironsides.	Prince Albert, Sask.	1,600 00
716	Dan. Whipps.	Colley, Assa.	1,120 00
718	John McEachen.	Clare, Assa.	640 00
720	Jas. Monkman.	Peguis, Man.	149 00
722	M. T. Bambridge.	Moose Jaw, Assa.	640 00
724	Alex. Middleton.	Dunmore, Assa.	320 00
725	Jas. McDougall.	Turnbull, Man.	285 00
726	Jas. Gilchrist.	Shellmouth, Man.	137 00
740	J. B. Pare.	Battleford, Sask.	550 00
741	E. Loder.	Kananaskis, Alta.	640 00

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LESSEES of Grazing Lands—Continued.

Ranche No.	Name	Address.	Area in Acres.
744	Rev. J. McDougall	Morley, Alta.	640 00
745	R. S. E. Harrison	Lake Dauphin, Man	862 00
748	J. Lawrence, jr.	Maple Creek, Assa.	1,440 00
749	C. Caughlin	Nanton, Alta.	480 00
753	John Harvey	Maple Creek, Assa.	640 00
759	Jas. Jackson	Maple Creek, Assa.	387 00
762	E. Clayton	Maple Creek, Assa.	640 00
764	John Kidd, sr.	Fairmede, Assa.	320 00
765	D. C. Morrison	Cochrane, Alta.	160 00
771	Gordon & Ironsides	Winnipeg, Man.	320 00
773	Alex. Turnbull	Gleichen, Alta.	378 00
774	Joseph Burgess	Fletwode, Assa.	240 00
777	Raikes & Lawford	Pine Lake, Alta.	160 00
785	T. H. Garry	Yorkton, Assa.	800 00
794	D. M. T. Powell	Moosomin, Assa.	160 00
797	W. C. Wells	Palliser, B.C.	2,400 00
798	C. F. Pretty	Harrison River, P. O., New Westminster District, B.C.	263 00
799	Rev. J. McDougall	Morley, Alta.	1,280 00
801	F. Ricks	Morley, Alta.	320 00
804	Donald McIver	Fairmede, Assa.	320 00
809	A. B. McRae	Glenmorris, Assa.	160 00
813	M. A. Murray	Jumping Pond, Alta.	640 00
822	B. P. Alford	Pine Lake P. O., Alta.	320 00
825	M. J. Herbert	Pine Lake P. O., Alta.	640 00
837	R. E. Fisk & W. A. Thompson	Red Deer, Alta.	640 00
840	Lusk Bros.	Canmore, Alta.	640 00
841	Wm. Edge	Mitford, Alta.	640 00
843	Thomas Kerr	High View, Assa.	160 00
846	E. A. Wyndham	Pine Lake P. O., Alta.	320 00
849	P. B. Alford	Pine Lake P. O., Alta.	320 00
852	John Kidd	Fairmede, Assa.	640 00
854	Levi Havens	Wawota, Assa.	640 00
855	John McEachen	Clare, Assa.	320 00
856	L. McKinnon	Dunbow, Alta.	6 00
862	J. J. Bruce	Radnor via Cochrane, Alta.	307 00
863	F. H. Towers	Mitford, Alta.	1,920 00
864	R. E. Bonar	High View, Assa.	640 00
868	G. W. Quick	Maple Creek, Assa.	960 00
869	D. White	Maple Creek, Assa.	320 00
871	F. A. Jackson	Calgary, Alta.	160 00
872	A. Sibbald	P. O. Box 266, Calgary, Alta.	480 00
873	H. E. Sibbald	Jumping Pond, Alta.	320 00
874	W. Bell-Irving	Mitford, Alta.	2,080 00
877	W. D. Kirfoot	Mitford, Alta.	3,040 00
878	James Jackson	Maple Creek, Assa.	320 00
880	J. M. Wilson	Maple Creek, Assa.	1,920 00
881	V. F. Neis	Lamerton, Alta.	85 00
882	H. F. Mannsell	Macleod, Alta.	1,120 00
883	Joseph Fisher	Millarville, Alta.	160 00
887	R. Campbell	Maple Creek, Assa.	1,280 00
890	Thos. M. Weatherald	Glen Adelaide, Assa.	640 00
895	W. F. H. Collie	Moner, Man.	320 00
899	A. B. McRae	Cannington Manor, Assa.	91 50
902	J. A. Fleming	Maple Creek, Assa.	640 00
903	R. Ronsay	Yorkton, Assa.	320 00
904	G. Tranter	Maple Creek, Assa.	640 00
906	John Marrot	Canmore, Alta.	316 00
909	A. Middleton	Dunmore, Assa.	160 00
910	J. L. Thompson	Arcola, Assa.	640 00
911	James Walsh	Cochrane, Alta.	320 00
915	Joseph Burgess	Fletwode, Assa.	320 00
916	H. R. A. Payne	Riga, Moosomin, Assa.	160 00
918	J. A. Black	Springbank, Alta.	640 00
919	C. Blair	Maple Creek, Assa.	299 00
923	W. J. Furton	Cannington Manor, Assa.	1,440 00
925	R. P. Alford	Pine Lake, Alta.	320 00
930	Isaac Fleming	Maple Creek, Assa.	320 00

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LESSEES of Grazing Lands—Continued.

Ranche No.	Name.	Address.	Area in Acres.
933	C. E. Weatherald.....	Glen Adelaide, Assa.....	640' 00
935	J. C. Warren.....	Millarville, Alta.....	320' 00
939	E. Code.....	Red Deer, Alta.....	320' 00
946	W. D. Cavan.....	Dunmore, Assa.....	160' 00
952	Hugh Kippen.....	Arcole, Assa.....	320' 00
953	F. A. Clements.....	Fairmede, Assa.....	640' 00
966	J. & R. Copithorne.....	Jumping Pond, Alta.....	640' 00
968	L. Havens.....	Wawota, Assa.....	320' 00
978	S. F. Fawcett.....	Maple Creek, Assa.....	320' 00
979	C. P. Healey.....	Jumping Pond, Alta.....	480' 00
986	C. Sanders.....	Maple Creek, Assa.....	1,280' 00
988	A. E. Cameron.....	High View, Assa.....	320' 00
1001	H. Hickling.....	Calgary, Alta.....	480' 00
1017	Patrick Drummond.....	Jumping Pond, Alta.....	160' 00
1021	Jos. Clemens.....	Mitford, Alta.....	640' 00
1027	Ebenezer Healy.....	Calgary, Alta.....	320' 00
1029	Wm. W. Arnold.....	Lethbridge, Alta.....	368' 00
1030	Thos. Johnson.....	Maple Creek, Assa.....	1,280' 00
1037	J. A. W. Fraser.....	Jumping Pond, Alta.....	640' 00
1038	G. A. Love.....	Red Deer, Alta.....	640' 00
1041	C. H. Clements.....	Fairmede, Assa.....	320' 00
1047	C. H. Seymour.....	Red Deer, Alta.....	320' 00
1048	Sarnia Rancho Co.....	Sarnia, Ont.....	15,520' 00
1052	H. Fraser.....	Canmore, Alta.....	242' 00
1053	G. & I. Blackwood & Co.....	Whitewood, Assa.....	164' 00
1054	Bateman & Wood.....	Jumping Pond, Alta.....	320' 00
1055	John A. Kerr.....	High View, Assa.....	160' 00
1057	J. Garry.....	Yorkton, Assa.....	320' 00
1058	A. J. Shaw.....	Mitford, Alta.....	320' 00
1061	E. Harman.....	Fletwode, Assa.....	480' 00
1062	Peter Ronsay.....	Yorkton, Assa.....	640' 00
1064	P. Doyle.....	Moose Jaw, Assa.....	640' 00
1065	Leeson & Scott.....	Calgary, Alta.....	320' 00
1066	R. Cummings.....	Fletwode, Assa.....	800' 00
1068	W. Huckvale.....	Many Berries Ck., Coutts, Alta.....	4,800' 00
1069	W. W. Wilson.....	Gruburn, Assa.....	320' 00
1070	C. David.....	Duhamel, Alta.....	160' 00
1072	Hull Bros.....	Calgary, Alta.....	1,920' 00
1074	F. Janet.....	Fletwode, Assa.....	1,280' 00
1075	C. Blair.....	Maple Creek, Assa.....	640' 00
1076	J. & R. Copithorne.....	Jumping Pond, Alta.....	1,920' 00
1079	J. Meehan.....	Rosebud, Alta.....	160' 00
1080	A. P. Welsh.....	Millarville, Alta.....	640' 00
1082	Joseph Girard.....	Fletwode, Assa.....	1,920' 00
1086	H. & J. Bourne.....	Sheppard, Calgary, Alta.....	639' 00
1088	W. J. Lee.....	Turnbull P.O., Shellmouth, Man.....	640' 00
1093	Chas. Davis.....	Whitewood, Assa.....	160' 00
1095	J. R. Huddlestone.....	Josephburg, Assa.....	320' 00
1099	J. A. Turner.....	Millarville, Alta.....	270' 00
1101	R. B. Warner.....	Fletwode, Assa.....	480' 00
1107	John Lawrence.....	Maple Creek, Assa.....	960' 00
1109	E. W. Rackstraw.....	Whitewood, Assa.....	2,080' 00
1114	C. Coughlin.....	Nanton, Alta.....	1,280' 00
1116	F. S. Blake.....	Livingstone, Assa.....	160' 00
1117	L. C. Brown.....	Josephburg, Assa.....	480' 00
1118	Chas. Lees.....	Maple Creek, Assa.....	480' 00
1119	W. J. Latimer.....	Calgary, Alta.....	160' 00
1120	Jas. Dupe.....	Whitewood, Assa.....	960' 00
1122	J. B. Scott.....	Wetaskiwin, Alta.....	100' 00
1123	W. J. Wilson.....	Clare, Assa.....	320' 00
1125	Wm. Harkness.....	Fletwode, Assa.....	640' 00
1126	Johann Oswald.....	Steinbach, Man.....	160' 00
1127	G. F. Pownall.....	Davisburg, Alta.....	320' 00
1129	C. G. Healey.....	Jumping Pond, Alta.....	320' 00
1132	Thos. Reid.....	Whitewood, Assa.....	160' 00
1135	Wm. Hinde.....	Calgary, Alta.....	640' 00
1136	Murton & Ingham.....	Calgary, Alta.....	640' 00
1137	T. H. Tinney.....	Medicine Hat, Assa.....	1,280' 00

LESSEES of Grazing Lands—*Continued.*

Ranch No.	Name.	Address.	Area in Acres.
1138	R. Turner.....	Calgary, Alta.....	169'00
1139	D. McAlpine.....	Walsh, Assa.....	2,400'00
1140	McLaughlin Bros.....	Medicine Hat, Assa.....	560'00
1141	J. Cockbaine.....	Cochrane, Alta.....	2,018'00
1142	Wm. Archibald.....	Poplar Grove, Assa.....	480'00
1143	D. A. McCallum.....	Nanton, Alta.....	480'00
1144	J. Colard.....	Wulseley, Assa.....	320'00
1146	J. E. M. Leeds.....	New Oxley, Alta.....	1,280'00
1150	A. J. Prongua.....	Battleford, Sask.....	640'00
1154	J. H. Metcalfe.....	Westbourne, Man.....	320'00
1159	Mrs. Jane Abbott.....	Gruburn, Assa.....	160'00
1160	S. G. Pardoe.....	Devil's Pine Lake, Alta.....	160'00
1161	T. Stewart.....	Whitewood, Assa.....	320'00
1170	W. Moodie.....	Millarville, Alta.....	640'00
1173	R. Hillhouse.....	Broadview, Assa.....	160'00
1178	J. Lambie.....	Maple Creek, Assa.....	640'00
1180	H. Letts.....	Edwill, Alta.....	320'00
1181	Wm. Gier.....	Okotoks, Alta.....	480'00
1184	T. J. Pearson.....	Regina, Assa.....	160'00
1185	J. B. Cheesbrough.....	Red Deer, Alta.....	158'00
1186	R. E. Fiske.....	Red Deer, Alta.....	320'00
1187	P. St. Dennis.....	Maple Creek, Assa.....	1,120'00
1188	Young & Major.....	Seaburn, Man.....	1,280'00
1191	S. Brown.....	Millarville, Alta.....	260'00
1192	E. H. Bottervell.....	Montreal, Prov. Que.....	640'00
1193	F. A. Massack.....	Millarville, Alta.....	160'00
1194	T. H. Tinney.....	Medicine Hat, Assa.....	499'00
1195	A. Loudon.....	Colleston, Sask.....	160'00
1196	Messrs. Starke and Burton.....	Medicine Hat, Assa.....	1,400'00
1198	A. H. Eckford.....	High River, Alta.....	640'00
1199	T. Harkness.....	Fletwode, Assa.....	1,940'00
1200	J. B. Scott.....	Wetaskiwin, Alta.....	17'00
1201	Jas. Martin.....	Maple Creek, Assa.....	1,780'00
1202	J. C. Hargrave.....	Walsh, Assa.....	3,035'44
1203	F. S. Blake.....	Livingstone, Alta.....	313'00
1209	L. Simonin.....	Lake Chapleau, Assa.....	640'00
1210	H. Erickson.....	Red Deer, Alta.....	160'00
1213	F. W. Chamberlain.....	Whitewood, Assa.....	320'00
1218	S. Grimson.....	Red Deer, Alta.....	160'00
1220	Messrs. Spencer <i>et al.</i>	Sunnyside, Montana, U.S.A.....	69,120'00
1222	S. A. Harnett.....	Innisfail, Alta.....	320'00
1225	J. Lawrence.....	Maple Creek, Assa.....	640'00
1226	L. Chauvancy.....	Fletwode, Assa.....	640'00
1227	W. A. Douglas.....	Maple Creek, Assa.....	640'00
1229	M. Dowker.....	Calgary, Alta.....	320'00
1233	Blache Bros.....	Springbank, Alta.....	640'00
1237	P. C. Barnard-Hervey.....	Calgary, Alta.....	320'00
1240	C. Lees.....	Maple Creek, Assa.....	160'00
1241	J. T. McKnight.....	Calgary, Alta.....	57'00
1243	A. Wilton.....	Whitewood, Assa.....	640'00
1244	W. C. Skrine.....	High River, Alta.....	640'00
1246	J. Fisher.....	Millarville, Alta.....	160'00
1249	N. Williams.....	Millarville, Alta.....	480'00
1252	Samson & McNaughton.....	Calgary, Alta.....	640'00
1257	A. Young.....	Calgary, Alta.....	320'00
1258	T. W. Johnston.....	Moffat, Assa.....	640'00
1261	W. F. Wilson.....	Brandon, Man.....	5,000'00
1262	N. Harper.....	Calgary, Alta.....	480'00
1263	J. Reboul.....	Fletwode, Assa.....	320'00
1267	A. White.....	Whitewood, Assa.....	1,280'00
1268	O. Nicoll.....	Solsgrith, Man.....	1,280'00
1271	J. B. Scott.....	Dried Meat Lake, Duhamel, Alta.....	118'00
1272	J. Martin.....	Maple Creek, Assa.....	640'00
1273	W. M. Garment.....	Crowstand, Assa.....	157'00
1276	W. H. Meyers.....	Prince Albert, Sask.....	480'00
1277	W. Braikenridge.....	Maple Creek, Assa.....	2,210'00
1278	A. Gauzee.....	Marguerite, Assa.....	640'00
1279	F. Burton.....	Lyndon, Alta.....	320'00

SESSIONAL PAPER No. 25

LESSEES of Grazing Lands—Continued.

Ranche No.	Name.	Address.	Area in Acres.
1280	Jean Martin.....	Fletwode.....	960 00
1281	P. Currie.....	Whitewood, Assa.....	960 00
1282	D. Kearns.....	Maple Creek, Assa.....	1,280 00
1283	L. Perry.....	Montmartre, Man.....	160 00
1284	W. Harkness.....	Fletwode, Assa.....	320 00
1289	C. M. Wallace.....	Forest Farm, Assa.....	160 00
1290	S. Carson.....	Forest Farm, Assa.....	320 00
1293	R. H. Yoe.....	Brookside, Assa.....	160 00
1296	W. Jackson.....	Millarville, Alta.....	320 00
1299	James Duke.....	Whitewood, Assa.....	640 00
1300	Chas. S. Eggleton.....	Lacombe, Alta.....	480 00
1310	Hunter Bros.....	Cochrane, Alta.....	640 00
1313	A. P. Welsh.....	Millarville, Alta.....	160 00
1314	W. H. Thompson.....	Grenfell, Assa.....	320 00
1316	A. Agrew.....	Red Deer, Alta.....	315 00
1321	Brown Ranche Co. (Ltd.).....	Rat Portage, Ont.....	17,000 00
1324	G. W. Quirk.....	Maple Creek, Assa.....	640 00
1330	W. J. Birney-Brown.....	Cochrane, Assa.....	640 00
1335	G. A. Trent.....	Walsh, Assa.....	1,120 00
1336	L. C. Brown.....	Josephburg, Assa.....	320 00
1338	W. Toppings.....	Fitzmaurice, Assa.....	800 00
1339	E. J. Kieran.....	Calgary, Alta.....	320 50
1340	C. Gorrell.....	Carberry, Man.....	320 00
1341	J. Lopton.....	Westbourne, Man.....	160 00
1342	R. Mitchell.....	Medicine Hat, Assa.....	300 00
1344	J. Harvey.....	Maple Creek, Assa.....	960 00
1345	J. H. McEwen.....	Nanton, Alta.....	320 00
1349	D. Carter.....	Fish Creek, Alta.....	160 00
1357	J. Arnell.....	Calgary, Alta.....	640 00
1358	J. Hockin.....	Lacombe, Alta.....	640 00
1359	J. Lynch.....	Calgary, Alta.....	320 00
1360	J. Lawrence.....	Maple Creek, Assa.....	320 00
1361	S. H. Mayhood.....	Calgary, Alta.....	160 00
1363	W. Carson.....	Whitewood, Assa.....	320 00
1366	G. F. Beere.....	Macleod, Alta.....	400 00
1367	Dr. F. W. Shaw.....	Carberry, Man.....	160 00
1370	C. Cumming.....	Fletwode, Assa.....	1,280 00
1371	J. Reboul.....	Fletwode, Assa.....	320 00
1372	T. Huckerby.....	Fletwode, Assa.....	160 00
1373	A. Chennells.....	Maple Creek, Assa.....	640 00
1374	H. C. Neis.....	Lamerton, Alta.....	97 00
1375	L. Raincock.....	Westbourne, Man.....	320 00
1379	W. E. Smith.....	Wildcat, Livingstone, Alta.....	320 00
1382	John Lineham.....	Okotoks, Alta.....	320 00
1383	Jos. Edwards.....	Tumbell, Man.....	640 00
1386	W. L. Christie.....	High River, Alta.....	480 00
1387	R. Mitchell.....	Medicine Hat, Assa.....	600 00
1388	A. Martin.....	Cochrane, Alta.....	1,120 00
1390	C. D. Strong.....	Walsh, Assa.....	160 00
1392	G. A. Reid.....	Cochrane, Alta.....	1,325 00
1393	F. W. Peacock.....	Maple Creek, Assa.....	175 50
1394	Messrs. Adams & King.....	Calgary, Alta.....	800 00
1395	A. Wallis.....	Calgary, Alta.....	129 00
1398	H. Fraser.....	Canmore, Alta.....	640 00
1399	A. Herr.....	Brice, Alta.....	320 00
1400	J. Cheyne.....	Oxbow, Assa.....	640 00
1401	J. Dixon.....	Maple Creek, Assa.....	960 00
1404	B. S. Lloyd.....	Calgary, Alta.....	320 00
1406	A. Munro.....	Whitewood, Assa.....	640 00
1411	W. Wood.....	Broadview, Assa.....	160 00
1412	J. F. Clements.....	Brookside, Assa.....	160 00
1414	R. H. Yeo.....	Brookside, Assa.....	320 00
1416	T. E. Jackson.....	Calgary, Alta.....	320 00
1417	S. T. Clements.....	Brookside, Assa.....	160 00
1421	A. Shaw.....	Medicine Hat, Assa.....	640 00
1423	P. B. Cleland.....	Midnapore, Alta.....	160 00
1428	Chas. Perry.....	Cochrane, Alta.....	320 00
1429	Jos. Dixon.....	Maple Creek, Assa.....	320 00

2-3 EDWARD VII., A. 1903

LESSEES of Grazing Lands—*Continued.*

Rancho No.	Name.	Address.	Area in Acres.
1431	J. B. Lindsay	Medicine Hat, Assa	640 00
1433	J. Stephens	Calgary, Alta	320 00
1442	Messrs. Starke & Burton	Medicine Hat, Assa.	1,760 00
1446	W. F. Wilson	Brandon, Man	17,000 00
1448	John Coland	Fletwode, Assa	320 00
1452	J. H. Metcalfe	Westbourne, Man	370 00
1453	J. R. Allan	Macleod, Alta	320 00
1455	K. F. Cummings	Macleod, Alta	52 00
1457	John Thordarson	Big Point, Wild Oak P. O., Man	160 00
1458	The Lethbridge Sheep Co	Lethbridge, Alta	1,760 00
1461	Chas. A. Wood	Pine Lake, Alta	1,280 00
1462	The Sheep Creek Ranching Co.	Calgary, Alta.	160 00
1463	D. McDougall	Millard, Alta	1,440 00
1464	G. W. Wood	Pine Lake, Alta	1,280 00
1465	Wm. Harkness	Fletwode, Assa	1,120 00
1469	H. Norman Sheppard	Pekisko, Alta.	640 00
1473	Jas. Markle	Kissina, Assa	320 00
1476	John Deis	Balgonia, Assa	160 00
1479	Jules Gagne	Battleford, Sask	160 00
1482	J. C. Warner	Fletwode, Assa	640 00
1490	J. McKay	Whitewood, Assa.	320 00
1500	F. Clark	Dundurn, Assa	320 00
1501	Vabaree Rancho Co.	Calgary, Alta	640 00
1502	Mrs. A. Hammond	Winnipeg, Man.	480 00
1505	G. Bell	Millarville, Alta	100 00
1509	J. Poitras	Battleford, Sask	480 00
1511	W. E. Thorne	High River, Alta.	160 00
1513	E. Healy	Calgary, Assa	160 00
1515	W. Geo. Castle	Panama, Alta	320 00
1517	Henry Clayton	Calgary, Alta	480 00
1519	Geo. Ambrose	Maple Creek, Assa	640 00
1520	John Gravy	Hyde, Assa	160 00
1522	A. H. Salmon	Riga, Assa	165 00
1523	E. P. Cronquist	Red Deer, Alta	160 00
1525	S. J. Reinhardt	Calgary, Alta	160 00
1526	D. J. Simpson	Calgary, Alta	160 00
1527	J. Burke	Brookside, Assa	640 00
1528	P. Sullivan	Calgary, Alta.	640 00
1531	O. Johansson	Sunnymead, Assa	320 00
1532	H. B. Cosar	Calgary, Alta	160 00
1534	R. Fenwick	Graburn, Assa	160 00
1535	Conrad Bros	Lethbridge, Alta.	15 00
1537	E. Jonson	Calgary, Alta	320 00
1539	W. D. Lineham	Okotoks, Alta.	160 00
1540	Geo. W. Green	Red Deer, Alta	640 00
1541	Myles McArthur	Whitewood, Assa.	320 00
1542	L. Hinkson	Pine Lake, Alta	480 00
1543	H. Garlough	Pincher Creek, Alta	640 00
1544	Mrs. A. E. Hayes	Calgary, Alta	160 00
1546	Adams & Nuttall	Maple Creek, Assa	320 00
1547	Albert Todd	Weseley, Assa	160 00
1554	Thos. Birnie	Calgary, Alta	640 00
1556	Jas. Hope	Calgary, Alta.	160 00
1557	W. L. Christie	High River, Alta	640 00
1558	R. O. Sykes	Stand Off, Alta.	160 00
1559	A. L. T. D'Eyncourt	Calgary, Alta	1,120 00
1560	A. W. Snider	Swift Current, Assa	2,560 00
1561	Alex. Martin	Cochrane, Alta	640 00
1562	A. Hanson	Fletwode, Assa	160 00
1564	Jas. John Day	Battleford, Sask	640 00
1565	Thos. P. McHugh	Gleichen, Alta.	1,280 00
1566	John Lineham	Okotoks, Alta	575 26
1568	R. G. Armstrong	Graburn, Assa	640 00
1575	W. H. A. Auger	Maple Creek, Assa	320 00
1577	Bernard McKevitt	Calgary, Alta	160 00
1583	R. T. Kidd	Fairmead, Assa	160 00
1590	Messrs. Spencer <i>et al.</i>	Medicine Hat, Assa	22,000 00
1591	Harold Mackintosh	Livingstone, Alta	160 00

SESSIONAL PAPER No. 25

LESSEES of Grazing Lands—Continued.

Ranche No.	Name.	Address.	Area in Acres.
1592	David Erickson	Fletwode, Assa	160 00
1594	Geo. Boston	Cochrane, Alta	160 00
1595	Geo. Ward	Calgary, Alta	320 00
1596	Bland Herring	Macleod, Alta	160 00
1598	T. C. W. Riley & F. R. Riley	Calgary, Alta	480 00
1600	W. A. Lyndon	Lyndon, Alta	320 00
1607	A. Young	Calgary, Alta	160 00
1608	T. E. Jackson	Calgary, Alta	160 00
1609	Thos. H. Webb	Medicine Hat, Alta	160 00
1612	Alfred P. Welsh	Millarville, Alta	160 00
1613	Jos. H. Boston	Grand Valley, Alta	160 00
1618	C. A. Peterson	Maple Creek, Assa	300 00
1622	Samuel Lindsay	Whitewood, Assa	160 00
1623	Wm. Bruce	Calgary, Alta	640 00
1628	W. Harkness	Hazelwood, Assa	320 00
1633	Walker & Creighton	Morley, Alta	320 00
1634	John Brewster	Banff, Alta	1,280 00
1646	George Bell	Millarville, Alta	160 00
1648	Thos. Dodd	Kissina, Assa	320 00
1651	The Macmillan Rancho Co	Calgary, Alta	400 00
1654	W. H. Edge	Cochrane, Alta	640 00
1655	David C. McKenzie	Calgary, Alta	640 00
1660	L. Hinkson	Pine Lake, Alta	640 00
1661	Chas. F. McLeod	Red Deer, Alta	1,280 00
1662	C. B. McCallum	Innisfail, Alta	160 00
1663	W. H. Price	High River, Alta	160 00
1664	Wm. Harkness	Hazelwood, Assa	320 00
1665	C. W. E. Gardiner	Macleod, Alta	320 00
1666	Thos. H. Cullen	Calgary, Alta	160 00
1667	Thos. W. Robertson	High River, Alta	320 00
1668	Wm. Moodie	Millarville, Alta	320 00
1669	P. J. Nelson	Maple Creek, Assa	800 00
1671	William Kerr	Maple Creek, Assa	320 00
1673	John Murray	Maple Creek, Assa	320 00
1677	John Haigh	Cochrane, Alta	812 00
1678	John Lytle	Balgone, Assa	160 00
1681	Jacob Boessler	Grenfell, Assa	160 00
1685	Richard Newby	Maple Creek, Assa	320 00
1686	G. H. Mannsell	Calgary, Alta	640 00
1688	H. A. Crofton	Calgary, Alta	1,280 00
1692	Alexander Eddy	Medicine Hat, Assa	320 00
1693	Jas. W. Dimmick	Medicine Hat, Assa	320 00
1695	R. A. McDonald	Calgary, Alta	640 00
1698	J. Cook	Cochrane, Alta	160 00
1699	Levi Harker	Magrath, Alta	5,241 00
1701	D. M. Murray	High View, Assa	160 00
1702	W. H. Turner	Fletwode, Assa	160 00
1703	Aleide Marcotte	Duck Lake, Sask.	800 00
1704	Wm. J. Latimer	Calgary, Alta	160 00
1705	Samuel McCaw	Hazelwood, Assa	640 00
1706	J. R. Perry	Calgary, Alta	1,280 00
1708	Chas. Lee	Tumbell, Man.	1,140 00
1709	Albert Wilton	Whitewood, Assa	320 00
1710	Edward Carss	Lumsden, Assa	320 00
1711	Robert Armstrong	High View, Assa	160 00
1712	James Martin	Maple Creek, Assa	960 00
1713	Thos. Harkness	Hazelwood, Assa	320 00
1714	W. Anderson	Lineham, Alta	70 00
1717	W. Hodgkinson	Calgary, Alta	320 00
1719	F. McRae	Brookside, Assa	320 00
1721	J. Peddie & J. T. Rogers	Russell, Man.	5,129 00
1724	Mrs. A. Hammond	Winnipeg, Man.	640 00
1725	David Bristow	Grierson, Alta	160 00
1730	Wm. Harkness	Fletwode, Assa	320 00
1738	S. Gibson	Napanee, Ont.	640 00
1739	John Lintner	Coulee, Assa	160 00
1740	J. J. Quail	Medicine Hat, Assa	1,280 00
1741	Geo. V. Johnson	Horse Ck, Cochrane, Alta	640 00

2-3 EDWARD VII., A. 1903

LESSEES of Grazing Lands—Continued.

Ranch No.	Name.	Address.	Area in Acres.
1742	Edward Clark...	Medicine Hat, Assa.	2,400 00
1743	Geo. A. Trent...	Graburn, Assa.	1,760 00
1745	C. A. Magrath...	Lethbridge, Alta.	5,760 00
1746	J. I. Geissenger...	Red Deer, Alta.	1,280 00
1747	Alex. Gow...	Graburn, Assa.	5,600 00
1749	A. E. Cameron...	High View, Assa.	320 00
1751	Fred A. Jackson...	Millarville, Alta.	320 00
1752	Jas. McBean...	Graburn, Assa.	320 00
1755	Herbert G. Dunn...	Maple Creek, Assa.	320 00
1758	Joshua Davies...	Lethbridge, Alta.	320 00
1759	Isaac Flenning...	Maple Creek, Assa.	320 00
1760	N. D. Keeley...	Manitou, Man.	160 00
1763	Wm. Houghton...	Medicine Hat, Assa.	480 00
1764	Robt. W. Baker...	Hazelwood, Assa.	160 00
1775	Wm. Gemmell...	Whitewood, Assa.	320 00
1785	Geo. Allison...	Burnbank, Man.	640 00
1786	Lewis F. Pundy...	Medicine Hat, Assa.	160 00
1789	E. Harker...	Cardston, Alta.	5,560 00
1790	C. Briggs...	Graburn, Alta.	2,082 00
1791	F. Bourhis...	Golden Plain, Assa.	160 00
1792	F. O. Sissons...	Medicine Hat, Assa.	640 00
1793	R. P. Comer...	Woolchester, Assa.	640 00
1795	J. Hilton...	Heron, Assa.	160 00
1796	Wm. Croft...	Maple Creek, Assa.	1,600 00
1797	E. H. Botterell...	Montreal, P.Q.	640 00
1798	C. D. Strong...	Walsh, Assa.	996 00
1806	John Irving...	Dusley, Assa.	160 00
1810	W. H. Dodd...	Kissina, Assa.	160 00
1817	E. A. DeNevers...	Fairmeade, Assa.	160 00
1819	C. Briggs...	Graburn, Assa.	320 00
1820	T. H. Cullen...	Calgary, Alta.	800 00
1822	David Sheppard...	Oxbow, Assa.	160 00
1823	Edward Schneider...	Cochrane, Alta.	640 00
1825	William Smith...	Lumsden, Assa.	320 00
1827	W. B. Dixon...	Maple Creek, Assa.	320 00
1828	Walter S. Sparks...	American Falls, Idaho, U.S.A.	480 00
1829	Robert Scott...	Eagle Butte, Assa.	2,240 00
1830	James McKenzie...	Coutts, Alta.	1,280 00
1831	James Mann...	Maple Creek, Assa.	160 00
1833	Wm. Harkness...	Hazelwood, Assa.	160 00
1834	Ernest J. Peachy...	Medicine Hat, Assa.	960 00
1835	John C. Hargrave...	Medicine Hat, Assa.	824 80
1836	Robert Cummings...	Fletwode, Assa.	640 00
1837	John H. Spencer...	Medicine Hat, Assa.	235 00
1838	Robert Greenwood...	Pine Lake, Alta.	640 00
1841	Arthur Blythman...	Maple Creek, Assa.	480 00
1842	J. F. Minor...	Maple Creek, Assa.	320 00
1843	Frank C. Haydork...	Maple Creek, Assa.	320 00
1844	Andrew Young...	Calgary, Alta.	160 00
1845	Wm. Chapman...	Fitzmaurice, Assa.	320 00
1846	J. J. Clements...	Fairmeade, Assa.	320 00
1847	Wm. Scott...	Woolchester, Assa.	320 00
1848	A. B. Carle...	Medicine Hat, Assa.	320 00
1849	Heikki Maki...	Wapella, Assa.	160 00
1850	George Marlin...	Wolsely, Assa.	160 00
1851	J. Brynston...	Pine Creek, Alta.	160 00
1852	T. C. Allan...	Medicine Hat, Assa.	160 00
1853	W. T. Gibson...	Coule, Assa.	160 00
1855	Herbert Gobett...	Medicine Hat, Assa.	320 00
1856	Mrs. Lizzie Hamilton...	Woolchester, Assa.	320 00
1857	Albert Dash...	Hillesden, Assa.	160 00
1858	E. Latellier...	Sintaluta, Assa.	640 00
1860	C. C. Cooke...	Grenfell, Assa.	160 00
1861	William Small...	Maple Creek, Assa.	320 00
1862	R. P. Comer...	Eagle Butte, Med. Hat, Assa.	640 00
1863	F. Moorehouse...	Calgary, Alta.	640 00
1864	Dr. A. R. Turnbull...	Moose Jaw, Assa.	480 00
1865	W. E. Pepper...	Cochrane, Alta.	320 00

SESSIONAL PAPER No. 25

LESSEES OF GRAZING LANDS—Continued.

Ranche No.	Name.	Address.	Area in Acres.
1867	Howell Harris	Lethbridge, Alta.	310.00
1868	Charles Holmes	Whitewood, Assa.	320.00
1869	T. R. Miles	Pincher Creek, Alta.	320.00
1870	Sigfus Jonsson	Geyser, Man.	160.00
1871	W. H. Ogle	Wood Mountain, Assa.	160.00
1872	A. H. Alford	Pine Lake, Alta.	160.00
1873	E. P. Bergner	Red Deer, Alta.	160.00
1874	Thomas Johnson	Maple Creek, Assa.	640.00
1875	A. Butterworth	Hazelwood, Assa.	160.00
1876	J. Knorek	Esterhaz, Assa.	640.00
1877	Owen Sanderson	Medicine Hat, Assa.	640.00
1878	Wm. D. Hunt	Fairmeade, Assa.	640.00
1879	William Dash	Hillesden, Assa.	160.00
1881	Alexander McCarthy	Skibbreen, Assa.	640.00
1882	Wm. Noble	Oxbow, Assa.	160.00
1883	R. de Malherbe	Millarville, Alta.	320.00
1884	Mrs. H. Surrey	Maple Creek, Assa.	640.00
1885	McLaughlin Bros.	Josephsburg, Assa.	320.00
1886	J. Ovens	Fitzmaurice, Assa.	320.00
1887	J. Morrison	Grenfell, Assa.	160.00
1888	Joseph Howard	Cochrane, Alta.	800.00
1890	A. P. McDonald	Lineham, Alta.	640.00
1891	W. G. Rock	Maple Creek, Assa.	640.00
1892	T. W. Minor	Maple Creek, Assa.	160.00
1893	H. C. Glasgow	Yarrow, Alta.	160.00
1894	Henry Waxmund	Lethbridge, Alta.	320.00
1895	H. J. Vandervoort	Lethbridge, Alta.	640.00
1896	Stewart & Burton	Meadow Creek, Alta.	960.00
1897	J. H. Fleming	Maple Creek, Assa.	2,240.00
1898	T. Brown & J. H. Wallace	Lethbridge, Alta.	10,000.00
1899	Mrs. Helena Yunker	Lethbridge, Alta.	319.00
1900	Fred Weiss	Medicine Hat, Assa.	320.00
1901	W. W. Wilson	Graburn, Assa.	960.00
1902	Henry Hassett	Maple Creek, Assa.	614.00
1903	Leslie C. Simons	High River, Alta.	160.00
1904	Roy Cowan	Langdon, Assa.	544.00
1905	J. O. Grahame	Kamloops, B.C.	320.00
1906	James Wright	Medicine Hat, Assa.	7,040.00
1907	Geo. H. Smibert	Elkwater, Assa.	1,120.00
1908	Charles Shankburger	Josephsburg, Assa.	160.00
1909	F. Durand	Whitewood, Assa.	160.00
1910	K. S. Meek	Medicine Hat, Assa.	189.00
1911	T. A. Roberts	Calgary, Alta.	160.00
1912	A. B. Smith	Mossomin, Assa.	160.00
1913	T. F. Terry	Whitewood, Assa.	160.00
1914	J. F. McCorkell	Morley, Alta.	586.70
1915	Mrs. M. J. Hinds	Fletwode, Assa.	872.72
1916	Thos. Lionel Perry	Calgary, Alta.	320.00
1917	W. W. Cooper	Medicine Hat, Assa.	634.00
1918	François Jasmin	Broadview, Assa.	480.00
1919	Edwin Kerslake	Hayfield, Man.	320.00
1920	N. A. Taylor	Medicine Hat, Assa.	1,600.00
1921	J. & R. Porter	Irvine, Assa.	1,582.00
1922	F. Jamet	Fletwode, Assa.	160.00
1923	E. Batrick	Calgary, Alta.	640.00
1924	E. Perrin	Maple Creek, Assa.	160.00
1925	R. B. Bennett & Son	Grenfell, Assa.	320.00
1927	B. Simpkin	Maple Creek, Assa.	640.00
1928	S. W. Auger	Conlee, Assa.	160.00
1929	J. L. Desautels	Willow Bunch, Assa.	320.00
1931	T. Herbert Rhodes	Medicine Hat, Assa.	640.00
1932	Ferdinand Jannet	Regina, Assa.	320.00
1934	Lethbridge Sheep Co. Ltd.	Lethbridge, Alta.	960.00
1935	W. R. Potts	Morley, Alta.	320.00
1937	W. L. Christie	High River, Alta.	640.00
1938	Zacharias Pickworth	Maple Creek, Assa.	480.00
1939	R. W. Cowan	Cochrane, Alta.	1,280.00
1940	John Lindner	Conlee, Assa.	1,280.00

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LESSEES OF GRAZING LANDS—Continued.

Ranche No.	Name.	Address.	Area in Acres.
1941	Massanall Bros.	Medicine Hat, Assa.	1,049 00
1942	F. M. Graham.	Morley, Alta.	387 40
1944	J. Jenkinson	Elkwater, Assa.	960 00
1945	Dr. P. D. Tyerman.	Prince Albert, Sask.	640 00
1946	T. B. Huddleston.	Elkwater, Assa.	320 00
1947	Arthur R. Springett.	New Oxley, Alta.	632 00
1948	Arthur Norman.	Springbank, Alta.	240 00
1949	Matthew Daniel.	Forest Farm, Assa.	160 00
1950	W. O. Fowler.	Skull Creek, Assa.	320 00
1951	Thomas Johnson.	Maple Creek, Assa.	640 00
1954	James Mann	Skull Creek, Assa.	960 00
1955	Henry Brier.	Medicine Hat, Assa.	623 00
1956	H. Bottis	Maple Creek, Assa.	160 00
1957	D. C. Morrison.	Cochrane, Alta.	160 00
1958	C. W. Minue.	Okotoks, Alta.	160 00
1959	A. J. Shaw	Cochrane, Alta.	320 00
1960	W. J. Horner	Medicine Hat, Assa.	640 00
1961	Robert Milligan	Pine Lake, Alta.	160 00
1962	C. W. Gaetz	Pine Lake, Alta.	160 00
1963	Willard J. Thompson	Lineham, Alta.	160 00
1964	D. Thorburn	Davisburg, Alta.	640 00
1965	Donald McDonald	Okotoks, Alta.	160 00
1966	D. H. McDougall.	Millward, Alta.	640 00
1967	Paul M. Bedt	Edenwold, Assa.	960 00
1968	A. T. Giles	Calgary, Alta.	270 00
1969	Alexander Shaw.	Medicine Hat, Assa.	320 00
1970	A. T. Mackie.	Pembroke, Ont.	30,325 00
1971	William Johnson	Lethbridge, Alta.	320 00
1972	Andrew Hanson	Moose Jaw, Assa.	160 00
1973	J. L. Hawk	Medicine Hat, Assa.	160 00
1974	C. E. Furman	Grassy Lake, Alta.	640 00
1975	R. W. Shafer	Maple Creek, Assa.	1,280 00
1976	John Martin	Regina, Assa.	960 00
1977	Arthur Collins	Pekisko, Alta.	320 00
1978	James Elliot	Coutts, Alta.	1,020 00
1979	W. H. Winterbourne	Medicine Hat, Assa.	480 00
1980	Frank D. Steed.	Stirling, Alta.	2,560 00
1981	A. Aird	Millarville, Alta.	400 00
1982	Thomas Doyle.	Maple Creek, Assa.	1,760 00
1983	John G. Potts	Morley, Alta.	480 00
1984	Swan Fredjornson	Sandy Bay, Man.	136 00
1985	George Newbury	Coulee, Assa.	480 00
1986	Thomas Bell.	Medicine Hat, Assa.	827 00
1987	Charles Spalding	High River, Alta.	640 00
1988	A. C. Mounkes	Calgary, Alta.	480 00
1989	Peter Junker	Balgonie, Assa.	640 00
1990	James Browne.	Tirer, Assa.	242 00
1991	J. L. McDonald	Tumbell, Man.	800 00
1992	P. E. Johanson	Theodore, Assa.	160 00
1993	B. F. Bingham, G. M. Smith, G. Woodward.	Stirling, Alta.	6,720 00
1994	Edward Rogers	Whitlash, Montana, U.S.A.	1,280 00
1995	C. M. Rawlinson	Calgary, Alta.	273 00
1996	J. A. Ross	Coulee, Assa.	2,400 00
1997	Fredk Parsonage.	Coulee, Assa.	480 00
1998	H. J. Kerr	Medicine Hat, Assa.	320 00
1999	Dr. T. A. M. Hughes	Souris, Man.	6,562 00
2001	Frank Steed	Stirling, Alta.	960 00
2002	Frank O. Fowler	Wawanesa, Man.	1,280 00
2003	Henry Hassett	Regina, Assa.	640 00
2004	Daniel Morrison	Skull Creek, Assa.	640 00
2005	Matts Frost.	Macleod, Alta.	160 00
2006	Charles Frost.	Macleod, Alta.	160 00
2007	C. E. Hall	Alexander, Man.	60,000 00
2008	Andrew Frost	Macleod, Alta.	160 00
2009	John A. Thatcher	Pueblo, Colorado, U.S.A.	65,440 00
2010	Hy. W. Cresswell	Lower Pecosco, New Mexico, U.S.A.	65,760 00
2011	Messrs. Driggs Bros.	Grassy Lake, Alta.	1,920 00

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LESSEES of Grazing Lands—Continued.

Ranche No.	Name.	Address.	Area in Acres.
2012	Max. Donaldson	Grassy Lake, Alta	1,650 30
2013	C. W. Anderson	Medicine Hat, Assa	640 00
2014	Frank Grampien	Kissina, Assa	320 00
2015	A. C. Coppock	Calgary, Alta	640 00
2016	Frank P. Marshall	Macleod, Alta	160 00
2017	Thomas Drury	Qu'Appelle Station, Assa	640 00
2018	A. J. Day	Pueblo, California, U.S.A.	65,760 00
2019	D. A. Richardson	Great Falls, Montana, U.S.A.	10,880 00
2020	Edward Howell	Battleford, Sask.	411 00
2021	John Ross	Minnedosa, Man.	8,169 00
2022	Alex. Coulee	St. Laurent, Man.	60 00
2023	D. McLean & Sons	Medicine Hat, Assa	6,400 00
2024	Charles Girard	Flettwode, Assa	160 00
2025	Henry Brayne	Nanton, Alta	320 00
2026	Joseph Caswell	Regina, Assa	160 00
2027	Thos. Fletcher	Calgary, Alta	160 00
2028	H. Raikes	Pine Lake, Alta	160 00
2029	Thco. Simpkinson	Grenfell, Assa	470 00
2030	Fred W. Craig	Maple Creek, Assa	160 00
2031	John M. Newberry	Moose Jaw, Assa	320 00
2032	Charles Lees	Maple Creek, Assa	800 00
2033	T. G. Wilson	Livingstone, Alta	320 00
2034	Joseph Oborn	Fair View, San Pete, Utah, U.S.A.	9,600 00
2035	John T. Bertram	Maple Creek, Assa	320 00
2037	Chas. Calkins	Medicine Hat, Assa	2,500 00
2038	R. W. Bartlett	Macleod, Alberta	640 00
2039	Chas. J. Peterson	Calgary, Alta	320 00
2040	Messrs. Wood & Anderson	Maple Creek, Assa	320 00
2042	Thos. Stephenson	Walsh, Assa	640 00
2043	John Hensworth	Whitewood, Assa	1,120 00
2044	Jola Copithorne	Jumping Pond, Alta	320 00
2045	Jas. McIntyre	Whitewood, Assa	320 00
2046	M. H. Herbert	Pine Lake, Alta	800 00
2047	Alex. der Shaw	Medicine Hat, Assa	640 00
2048	J. P. Jephson	Calgary, Alta	3,200 00
2050	Robt. Whittaker	Calgary, Alta	320 00
2052	Wm. Archibald	Poplar Grove, Assa	320 00
2053	John Jensen	Fair View, San Pete, Utah, U.S.A.	4,480 00
2054	Malcolm Cameron	Woolcheater, Assa	1,920 00
2055	J. C. H. Clarke	Skull Creek, Assa	480 00
2056	W. D. Shattuck	Davidsburg, Alta	640 00
2057	John N. Brewster	Macleod, Alta	160 00
2058	S. Gardner	Lethbridge, Alta	1,920 00
2059	L. J. Tudge	Wapella, Assa	160 00
2060	John Coghlan	Kissina, Assa	160 00
2061	Henry A. Norton	Medicine Hat, Assa	160 00
2062	R. G. Armstrong	Graburn, Assa	1,600 00
2063	C. Blair	Maple Creek, Assa	1,280 00
2064	Martin Wagner	Edenwold, Assa	160 00
2065	Frank D. Steed	Lethbridge, Alta	640 00
2066	Thos. Edworthy	Calgary, Alta	48 00
2067	M. McBride	Moose Jaw, Assa	640 00
2068	P. R. Armstrong	Graburn, Assa	320 00
2069	W. H. Thompson	Grenfell, Assa	160 00
2070	Hon. C. A. Semlin	Cache Creek, B.C.	4,160 00
2071	Daniel O'Hara	Ashcroft, B.C.	2,383 00
2072	J. & R. Copithorne	Jumping Pond, Alta	640 00
2073	Mrs Helen Shaw	Calgary, Alta	160 00
2074	John A. Patterson	Calgary, Alta	160 00
2075	Messrs. P. Rochon & Co	Calgary, Alta	160 00
2076	W. G. Adams	Maple Creek, Assa	320 00
2077	Edward McKenzie	Sterling, Alta	5,527 00
2078	R. G. Corbett	Medicine Hat, Assa	1,760 00
2079	P. McKinnon	Riga, Man.	320 00
2080	The Prince-Kerr Ranch Co., Ltd	Calgary, Alta, F. B. Brown, S-cretary	9,280 00
2081	W. Rollins	Grenfell, Assa	160 00
2082	John I. Chipman	Magrath, Alta	5,760 00
2083	Leslie C. Fleming	Woolcheater, Assa	640 00

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LESSEES of Grazing Lands—Continued.

Ranche No.	Name.	Address.	Area in Acres.
2084	Jos. M. Jeffers.	Cascade, Cascade County, Montana, U.S.A.	160 00
2085	Messrs. Cheeseman Bros.	Maple Creek, Assa.	800 00
2086	Robert Smith.	Cochrane, Alta.	160 00
2087	Ernest G. May.	Calgary, Alta.	480 00
2088	Thos. Spicer.	Moose Jaw, Assa.	653 00
2089	N. Wallwork.	Lethbridge, Alta.	1,793 00
2090	J. W. Taylor.	Salt Lake City, Utah, U.S.A.	46,915 00
2091	J. Craig.	Calgary, Alta.	160 00
2093	C. Nevile.	Wapella, Assa.	320 00
2094	J. Wilcox.	Cardston, Alta.	1,600 00
2095	G. W. Cox.	Grassy Lake, Alta.	1,920 00
2096	E. Drandson.	Medicine Hat, Assa.	1,280 00
2097	A. Gordon.	Medicine Hat, Assa.	960 00
2098	J. Harvey.	Maple Creek, Assa.	640 00
2099	S. H. Mayhood.	Calgary, Alta.	400 00
2100	J. M. Bratton.	Macleod, Alta.	640 00
2101	C. A. Lyndon.	Lyndon, Alta.	320 00
2102	H. J. Thompson.	Lineham, Alta.	160 00
2103	J. W. Crooks.	Josephsburg, Assa.	640 00
2104	A. W. Brooke.	Moose Jaw, Assa.	320 00
2105	G. W. Hassett.	Maple Creek, Assa.	480 00
2106	P. McKenzie.	Earlewood, Assa.	160 00
2107	J. J. Furman.	Grassy Lake, Alta.	1,280 00
2108	L. F. Mayhood.	Calgary, Alta.	160 00
2109	Paul & Penland.	Medicine Hat, Assa.	1,025 00
2110	Uno, Brennan.	Calgary, Alta.	480 00
2111	E. Gordon.	Medicine Hat, Assa.	1,280 00
2112	Romain Gervais.	High River, Alta.	480 00
2113	McPherson & Ramage.	Wawota, Assa.	320 00
2114	D. Kinnisburgh.	Lethbridge, Alta.	2,560 00
2115	J. T. Galloway.	Estevan, Assa.	320 00
2116	Love & Tanner Rancho Coy., Ltd.	Maple Creek, Assa.	1,760 00
2117	F. W. King.	Stirling, Alta.	64 00
2118	J. T. B. Bolton.	Eagle Butte, Assa.	320 00
2119	Wood & Anderson.	Coule, Assa.	320 00
2120	E. Loder.	Kananaskis, Alta.	800 00
2122	E. J. Fewings.	Medicine Hat, Assa.	320 00
2123	Henry R. Dring.	Wapella, Assa.	320 00
2124	Walter F. Towers.	Cochrane, Alta.	640 00
2125	Thomas Johnson.	Maple Creek, Assa.	1,280 00
2126	Geo. M. Cannon.	Salt Lake City, Utah, U.S.A.	9,760 00
2127	Jas. O'McConnell.	Calgary, Alta.	640 00
2128	Robert Emerson.	Calgary, Alta.	640 00
2129	Messrs. Robinson & Trent Brothers.	Walsh, Assa.	14,720 00
2130	Charles W. Fisher.	Cochrane, Alta.	2,240 00
2131	A. T. Mackie.	Pembroke, Ont.	41,280 00
2132	A. C. Monnkes.	Okotoks, Alta.	160 00
2133	Joseph Speers.	Macleod, Alta.	160 00
2134	John Horning.	Marialhill, Assa.	160 00
2135	D. Gosling.	Grassy Lake, Alta.	640 00
2136	Duncan McArthur.	Disley, Assa.	160 00
2137	Caleb Bishop.	Broadview, Assa.	160 00
2138	George A. Adams.	Maple Creek, Assa.	480 00
2139	John Ennis.	Grenfell, Assa.	160 00
2140	James Ernest Coe.	Lethbridge, Alta.	132 00
2141	Thomas Cooney.	Savona, B.C.	3,847 00
2142	Thomas P. Nolan.	Lethbridge, Alta.	160 00
2143	J. R. Collings.	Calgary, Alta.	160 00
2144	Conrad Anderson.	Calgary, Alta.	320 00
2145	R. Robinson.	Broadview, Assa.	160 00
2146	Peter J. Nasland.	Armour, South Dakota, U.S.A.	160 00
2147	William Miller.	Calgary, Alta.	300 00
2148	James Armstrong.	Whitewood, Assa.	320 00
2149	David Trimble.	Medicine Hat, Assa.	320 00
2150	Thidrick Eyvindson.	Wild Oak, Man.	320 00
2151	F. D. Steed.	Stirling, Alta.	320 00
2152	Joseph Garick.	Lethbridge, Alta.	480 00
2153	Joseph McNab.	Macleod, Alta.	320 00

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LESSEES of Grazing Lands—*Concluded.*

Ranche No.	Name.	Address.	Area in Acres.
2154	Pierre Rochon.....	Calgary, Alta.....	204'00
2155	Alfred Avery.....	Medicine Hat, Assa.....	90'00
2156	B. S. Loyd.....	Calgary, Alta.....	320'00
2157	Oliver Mayberry.....	Medicine Hat, Assa.....	160'00
2162	Charles McCarthy.....	Raymond, Alta.....	43,200'00
2163	Thomas Stuart.....	Calgary, Alta.....	480'00
2164	John Madge.....	Calgary, Alta.....	320'00
2165	R. W. Begley.....	Calgary, Alta.....	320'00
2166	Drowning Ford Rancho Coy..	Medicine Hat, Assa.....	452'00
2167	Parker A. Leigler.....	Coulee, Assa.....	800'00
2169	H. W. Meyers.....	Maple Creek, Assa.....	1,056'00
2170	T. W. Ross.....	Stirling, Alta.....	160'00
2171	J. T. Boulton.....	Eagle Butte, Assa.....	640'00
2172	Gordon Ironsides & Fares Co., Ltd.....	Winnipeg, Man.....	39,402'75
2173	Everett Parsonage.....	Coulee, Assa.....	638'00
2174	F. Dunand.....	Golden Plain, Assa.....	320'00
2175	O. Hitchcock.....	Moose Jaw, Assa.....	44,605'00
2176	John F. Day.....	Eagle Butte, Assa.....	1,600'00
2177	Alex. Shaw.....	Medicine Hat, Assa.....	640'00
2178	Christian Hubich.....	Edenwold, Assa.....	320'00
2181	Frederick G. Ward.....	Wapella, Assa.....	480'00
2182	Cecil Rice-Jones.....	Graburn, Assa.....	640'00
2183	Samuel J. Cooper.....	Maple Creek, Assa.....	800'00
2184	R. C. Becker.....	Medicine Hat, Assa.....	316'00
2185	James Mayberry.....	Medicine Hat, Assa.....	156'00
2186	F. Parsonage.....	Coulee, Assa.....	320'00
2187	John B. Wasessa.....	Whitlash, Montana, U.S.A.....	21,920'00
2188	W. R. Campbell.....	Calgary, Alta.....	320'00
2189	B. E. Sickler.....	Coutts, Alta.....	11,840'00
2194	James D. McGregor.....	Brandon, Man.....	45,954'00
2195	Chas. E. Glennie.....	Maple Creek, Assa.....	320'00
2196	Mrs. E. McLean & Mr. T. E. Thomas	Kamloops, B.C.....	10,198'00
2198	John H. G. Bray.....	Medicine Hat, Assa.....	320'00
Total area.....			1,272,847'66

HAY.

The following statement shows the names of persons who hold leases of Dominion lands for hay purposes:—

Ranche No.	Name.	Address.	Acres.
450	J. Gilchrist.....	Castleberry, Man.....	30'00
483	Wm. Thompson.....	Virden, Man.....	20'00
1023	J. W. Thoroughgood.....	Moose Jaw, Assa.....	40'00
1035	John A. Brooks.....	Tumbell, Man.....	40'00
1043	F. C. Hawkins.....	Moose Jaw, Assa.....	12'00
1083	A. McKeown.....	Caron, Assa.....	40'00
1087	C. V. Carlson.....	Scandinavia, Man.....	37'00
1288	J. F. McVey.....	Tamarisk, Man.....	40'00
1437	K. S. Gudmundsson.....	Gimli, Man.....	12'00
1953	W. C. Paynter.....	Tantallon, Assa.....	40'00
2092	R. Oldenburg.....	Lethbridge, Alta.....	40'00
Total area.....			351'00

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The following is a statement of the office work performed from July 1, 1901, to June 30, 1902 :—

	Number.
Letters sent....	27,571
Pages of memoranda and schedules....	6,755
Plans and sketches prepared....	475

Timber—

Berths applied for....	278
Berths granted....	77
Berths cancelled....	45
Licenses for timber berths prepared (in duplicate)....	398
Instructions issued for survey of timber berths....	21
Returns of surveys of timber berths examined....	18
Returns of saw-mills received and verified....	482
Permits to cut timber issued by agents also entered and checked....	6,701
Accounts kept posted....	476
Timber seizures entered and checked....	350

Grazing—

Applications for grazing lands received....	761
Leases of grazing lands authorized to be issued....	313
Leases of grazing lands issued....	269
Applications for hay lands....	33
Accounts kept posted—Grazing....	908
Accounts kept posted—Hay....	11
Hay permit forms used by the Dominion lands agents, also entered and checked over at this office....	3,203

Mining—

Accounts kept posted....	1,451
Applications for coal locations received....	978
Returns of survey hydraulic mining locations examined....	15
Applications for mining locations other than coal....	71
New entries and renewals for mining locations granted in Manitoba and North-west....	47
New entries and renewals for mining locations granted in Yukon Territory....	13,239
Applications for petroleum....	51
Water power....	8
Bed-rock flumes....	3
Applications for hydraulic mining locations....	24
Applications for gold dredging....	23
Hydraulic mining leases prepared....	20
Gold dredging leases prepared....	11

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Irrigation—

	Number.
Applications <i>re</i> irrigation recorded.....	9
Memorials examined....	47
Plans examined....	38
Authorizations for construction of ditches issued....	10
Assignments of irrigation applications examined and recorded	7
Certificates issued by inspector, examined and recorded....	23
Cancellation of irrigation applications issued and recorded....	15
Irrigation licenses issued (in triplicate)....	30
Drafts of patent for free right of way across Dominion and school lands prepared....	6

Miscellaneous—

Applications to purchase or lease land in the Yukon Territory received and dealt with during the course of the year..	101
Applications to lease lands in the Yukon Territory for agricultural purposes....	16
Applications for water frontage	18
Leases for agricultural lands issued....	20
Leases for hay lands issued....	1
Leases for water frontage issued....	25
Leases of lands for church purposes issued....	4
Leases for miscellaneous purposes issued....	3

G. U. RYLEY,

Chief Clerk.

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DOMINION LANDS REVENUE

A.—STATEMENT of Receipts on account of Timber, Grazing, Hay,

Month.	Timber Dues.	GRAZING LANDS.		Hay Lands.	Coal.
		Cash.	scrip.		
1901.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
July	17,577 33	347 12	277 23	2,963 21	181 65
August	15,815 77	386 12	345 18	770 25	70 00
September	27,984 61	339 87	467 66	187 20	125 00
October	14,714 13	339 45	1,453 28	86 30	52 20
November	7,044 25	332 11	323 97	58 90	63 30
December	17,581 27	492 83	497 96	9 30	69 15
1902.					
January	13,243 00	2,101 72	1,213 99	5 96	127 47
February	10,380 63	553 17	546 47	0 90	63 45
March	13,621 75	1,027 69	894 79	19 30	46 80
April	26,917 16	416 19	600 73	354 80	26 10
May	19,533 95	569 79	935 75	359 60	35 40
June	23,377 05	386 40	912 26	614 90	64 80
	207,790 90	7,292 46	8,409 27	5,430 56	925 32

TIMBER AND MINES BRANCH,

OTTAWA, August 20, 1902.

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(YUKON REVENUE INCLUDED).

Mineral and Irrigation for the fiscal year 1901-1902.

Irrigation.	Dredging, N.W. T.	Mining fees.	Hydraulic, Yukon.	Dredging, Yukon.	Free Miner's Certificates.	Royalty and Tax on Gold.	Rent of Water Power.	Total.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
10 00		22,111 25	295 59	150 00	12,426 50	66,248 11		122,577 99
		33,229 62	320 22	955 00	8,971 00	56,043 18		116,916 34
		29,010 75	1,200 00		10,995 00	66,395 24		136,635 33
20 00	1,070 00	21,382 75	5,665 91		11,977 00	32,624 03		89,385 05
30 00		15,880 75	1,960 00		7,659 00	14,744 04		48,096 32
10 00	64 85	18,538 75	300 00		6,187 00	146 63	9 80	43,907 54
20 00	100 00	16,431 50	1,050 00		6,463 00	481 67		46,238 25
10 00	350 00	14,577 00	3,760 97	100 00	5,895 00		13 80	36,237 59
20 00	1,129 25	19,479 75	3,378 29	2,600 00	8,861 00	1,960 47		52,992 89
40 00	350 00	26,431 37	824 21	400 00	13,551 13	1,104 61		71,026 30
60 00		19,776 61	825 00	150 00	14,338 39	3,030 83		59,615 32
	50 00	20,084 00	2 21		11,038 00	88,753 23		145,282 85
220 00	3,114 10	256,934 10	19,582 40	4,355 00	111,312 02	331,532 04	23 60	963,921 77

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REVENUE ON ACCOUNT THE YUKON TERRITORY.

B. STATEMENT of Receipts from Timber, Grazing, Hay, Hydraulic Mining, Royalty on Gold and Mining Fees for the fiscal year 1901-1902.

Month.	Timber Dues.	Grazing.	Hay.	Mining Fees.	Hydraulic.	Dredging.	Free Miners' Certificates.	Royalty and Export Tax on Gold.	Amount.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1901.									
July.....	4,122 40	.....	922 50	22,073 75	295 50	150 00	12,426 50	66,248 11	106,308 85
August.....	6,610 96	.....	401 50	33,209 02	320 22	950 00	8,971 00	56,043 18	104,511 50
September.....	5,809 71	91 95	172 50	28,995 75	1,200 00	.....	10,995 00	66,395 24	113,720 15
October.....	1,867 11	.....	75 50	21,300 25	5,605 91	.....	11,977 00	32,624 03	73,009 80
November.....	2,583 91	.....	38 00	15,700 75	1,900 00	.....	7,659 00	14,744 04	42,085 70
December.....	3,462 93	.....	.....	18,518 75	300 00	.....	6,187 00	146 63	28,615 31
1902.									
January.....	207 13	.....	.....	16,295 50	1,050 00	.....	6,463 00	181 67	24,598 30
February.....	1,499 21	.....	.....	14,556 75	3,760 97	100 00	5,895 00	.....	25,811 93
March.....	2,629 03	.....	.....	19,432 00	3,378 29	2,600 00	8,901 00	1,970 47	38,800 79
April.....	3,019 79	.....	.....	26,383 87	824 21	400 00	13,561 13	1,104 61	45,293 61
May.....	4,539 96	.....	132 00	19,744 11	825 00	150 00	14,358 39	3,030 83	42,760 28
June.....	5,940 14	.....	166 50	29,044 00	2 21	.....	11,038 00	88,753 23	125,944 08
	42,452 29	91 95	1,978 50	256,256 10	19,582 40	4,335 00	118,312 02	331,532 04	774,560 30

TIMBER AND MINES BRANCH, September 21, 1902.

REVENUE ON ACCOUNT THE YUKON TERRITORY.

C. STATEMENT of Receipts from Timber, Grazing, Hay, Hydraulic Mining, Royalty on Gold and Mining Fees for each fiscal year from July 1, 1894, to June 30, 1902.

Revenue from	1894-1895.	1895-1896.	1896-1897.	1897-1898.	1898-1899.	1899-1900.	1900-1901.	1901-1902.	Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Timber Dues.....	43,911 71	54,097 64	35,468 46	74,893 80	42,452 29	250,823 90
Grazing Lands.....	100 00	51 20	243 15	243 15
Hay Lands.....	29 50	1,733 50	7,596 75	4,057 42	1,978 50	15,395 67

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Gold Dredging Leases.....					3,500 00	1,000 00	2,500 00	4,355 00	144,010 50
Hydraulic Mining Leases.....					8,025 00	6,808 15	11,412 32	19,582 40	46,887 87
Royalty on Gold.....					575,812 75	753,041 04	596,368 03	331,532 04	2,524,177 45
Mining Fees.....									
Grants—Placer.....		1,140 00			179,415 00	20,240 00	79,358 00	63,070 00	451,619 00
Relinquishments.....					64,980 10	62,280 00	49,905 00	75,345 00	286,035 04
Relocations.....					17,025 00	11,070 00	45,137 00	35,660 00	100,492 00
Grants—Quartz.....	5 00				3,270 00	4,585 00	6,250 00	5,890 00	20,335 00
Certificate of Work.....		22 00			115 00	3,416 50	7,651 00	12,040 50	23,223 00
Assignments.....					23,419 00	12,614 50	11,531 00	16,273 00	60,327 50
Abstracts.....					3,750 95	3,551 00	2,759 25	1,455 00	13,496 20
Abandonments.....					203 00				205 00
Bed Rock Flumes.....					1,400 00				1,400 00
Certificate of Partnership.....					30 00	291 50	681 50	1,074 50	2,080 00
Bond Fees.....		20 00				620 00			1,420 00
Forbidden Fees.....							9,518 00	2,695 00	12,213 00
Lay Overs.....									507 50
Payments in lieu of assessment work.....									57,759 40
Payments in lieu of assessment work with Penalty.....									
Registration of Documents.....									13,500 00
Water Rights.....					7,435 60	3,000 00	10,500 00		36,319 50
Sale of Govt. Reserve on Dominion Creek.....					100 00	8,032 50	7,343 40	15,375 00	1,862 50
Sale of Government Claims.....						13,593 20	1,056 00	390 00	14,702 07
Infringements.....						150 00	87,241 50	111 87	87,503 37
Changing the name of a Claim.....						525 00			525 00
Inspectors' Certificates.....						25 00	60 00	90 00	175 00
Court Fees.....							30 00	240 00	270 00
Certificates of Improvements.....							686 75	3,124 25	3,811 00
Advance Deposit Account.....								7 50	7 50
Over Deposit.....								12,449 75	12,449 75
Unclassified.....							0 50		0 50
	5 00	22 00	1,220 00	610,257 20	947,354 58	938,461 10	1,038,091 07	1,063 86	4,194,981 23
Leas Mining Fees misappropriated, \$3,284, and Fees transferred to Patents Branch, \$58.....									3,342 00
									4,191,639 00
Free Miner's Certificates.....	5 00	22 00	1,220 00	610,257 20	947,354 58	938,461 10	1,038,091 07	656,248 28	714,480 84
Grand total.....									4,906,119 84

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YUKON REVENUE.

D. STATEMENT showing the total Gold production, the total exemption, the total amount upon which royalty was collected, and the amount of royalty paid, as shown by returns from the several Agencies, for each fiscal year from May 1, 1898, to June 30, 1902.

Agency.	Gold Production.		Exemption.		Subject to Royalty.		Royalty collected.		Infringement.		Total Royalty.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
1897 1898.												
Grand Forks	2,884,576	70	302,540	00	2,582,076	70	258,297	67	.....	.....	258,297	67
Canadian Bank of Commerce	153,906	50	23,945	00	129,961	50	12,996	15	.....	.....	12,996	15
Dawson	34,290	00	13,460	00	20,830	00	2,089	00	.....	.....	2,089	00
Totals for the year	3,072,773	20	339,845	00	2,732,928	20	273,292	82	.....	.....	273,292	82
1898 1899.												
Grand Forks	5,501,909	65	1,002,151	60	4,499,818	65	443,981	65	.....	.....	443,981	65
Canadian Bank of Commerce	485,429	15	123,500	00	361,929	15	36,192	91	.....	.....	36,192	91
Dawson	347,781	30	7,500	00	340,281	30	34,028	13	1,300	24	35,328	37
Donkey Creek	806,012	35	314,590	81	491,421	55	49,112	15	379	91	49,522	96
Hunker Creek	441,090	56	191,915	21	249,175	35	24,917	53	.....	.....	24,917	53
Totals for the year	7,582,283	02	1,609,657	02	5,982,626	00	588,262	37	1,481	15	589,743	52
1899 1900.												
Grand Forks	4,391,439	32	1,146,814	42	3,244,624	90	324,462	49	.....	.....	324,462	49
Canadian Bank of Commerce	1,739,955	98	277,407	78	1,462,547	90	146,254	79	.....	.....	146,254	79
Dawson	625,042	92	67,083	42	557,959	50	55,795	95	2,369	05	58,065	00
Donkey Creek	1,390,448	54	112,957	84	1,277,490	70	127,499	06	.....	.....	127,499	06
Hunker Creek	740,065	35	338,865	35	401,199	00	40,113	90	.....	.....	40,113	90
Bank of British North America	400	00	.....	.....	400	00	50	00	.....	.....	50	00
Staple Creek	358,282	85	155,194	35	203,088	50	20,308	85	.....	.....	20,308	85
Gold Run	593,789	96	103,420	45	490,369	50	49,036	95	.....	.....	49,036	95
Totals for the year	9,809,464	64	2,501,744	64	7,307,720	00	730,771	99	2,369	65	733,141	01

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1900-1901.					
Grand Forks.....	5,945,798 86	1,033,599 68	4,914,204 88	392,396 86	392,396 86
Dawson.....	574,280 67	141,666 66	432,619 41	39,249 79	42,936 84
Dominion Creek.....	933,051 60	257,499 98	675,551 62	57,414 26	57,414 26
Hunker Creek.....	780,490 33	258,900 00	527,590 33	42,671 53	42,671 53
Sulphur Creek.....	383,004 37	113,000 00	278,004 37	24,337 88	24,337 88
Gold Run.....	517,041 10	117,500 00	399,541 10	35,814 22	35,814 22
Hootalinqua.....	10,518 59	2,500 00	8,018 59	801 85	801 85
Eureka.....	1,891 87	1,000 00	891 87	44 59	44 59
Totals for the year.....	9,162,082 79	1,927,066 62	7,235,022 17	592,690 98	596,308 03
1901-1902.					
Grand Forks.....	3,062,977 97	441,166 66	2,621,810 71	131,087 03	131,087 03
Dawson.....	4,029,114 52	60,000 00	4,009,114 52	113,426 84	113,522 09
Dominion Creek.....	732,788 85	219,969 32	512,789 53	25,748 35	25,748 35
Hunker Creek.....	836,388 49	397,948 66	528,439 83	26,430 80	26,430 80
Sulphur Creek.....	239,533 98	85,000 00	154,533 98	7,726 73	7,726 73
Gold Run.....	581,184 00	65,000 00	516,184 00	25,869 42	25,869 42
Eureka.....	20,533 31	15,000 00	5,533 31	276 62	276 62
White Horse.....	6,840 00	.....	6,840 00	342 00	342 00
Forty Mile Creek.....	16,980 00	5,000 00	11,980 00	599 00	599 00
Totals for the year.....	9,593,340 52	1,194,114 64	8,397,225 88	331,436 79	331,532 04

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YUKON REVENUE.

E.—STATEMENT showing the Revenue collected on Free Miner's Certificates issued at the following places in Great Britain and the Dominion of Canada, during the years 1898 to June 30, 1902.

Agency.	1897-1898.	1898-1899.	1899-1900.	1900-1901.	1901-1902.	Total.
	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.
Agent of Dominion Lands:—						
Brandon, Man.		10 00	30 00			40 00
Calgary, Alta.	650 00	100 00	260 00	215 00	150 00	1,375 00
Dauphin, Man.		10 00				10 00
Edmonton.	8,394 00	490 00	1,000 00	213 00	92 00	10,189 00
Kamloops, B.C.	50 00	20 00	10 00	10 00		90 00
Lethbridge, Alta.			10 00	30 00	390 00	430 00
New Westminster, B.C.	130 00		30 00		35 00	195 00
Prince Albert, Sask.	710 00	10 00	10 00		20 00	750 00
Winnipeg, Man.	570 00	900 00	320 00	280 00	385 00	2,455 00
Agencies within the Yukon:—						
Dawson.		169,152 00	79,526 00	76,260 00	63,395 00	388,333 00
Dalton Trail.		710 00	300 00	30 00	1,330 00	2,370 00
Dominion Creek.		3,950 00	8,284 00	7,219 00	8,580 00	28,533 00
Fort Cudahy.		350 00	1,140 00	140 00		1,630 00
Grand Forks.		27,502 00	18,298 00	18,893 00	16,766 00	81,459 00
Gold Run.			170 00	4,367 00	5,752 00	10,289 00
Hunker Creek.			3,850 00	5,216 00	5,954 00	15,020 00
Hootalinqua.			90 00	930 00	1,495 00	2,515 00
Lake Bennett.	7,904 00	80 00				7,984 00
McQuestion.		102 00	10 00			112 00
Selkirk.			1,952 00	405 00	625 00	2,982 00
Stewart River.		5,734 00	1,512 00	1,919 00	2,970 00	12,135 00
Sulphur Creek.			610 00	1,984 00	2,180 00	4,774 00
Tagish (Wood).		2,416 00				2,416 00
Tagish (Miller).		642 00	4,646 00	2,000 00	3,069 00	10,957 00
Tagish Lake.		9,246 00				9,246 00
Forty Mile.				600 00	1,262 50	1,862 50
Upper Stewart River.				130 00		130 00
Clear Creek.					783 00	783 00
Collectors of Customs:—						
Ashcroft, B.C.	410 00					410 00
Atlin, B.C.		1,000 00	760 00	750 00		2,510 00
Glenora, B.C.	410 00	600 00				1,010 00
Montreal, Que.	840 00	170 00	70 00	30 00	20 00	1,130 00
Nanaimo, B.C.	4,292 00					4,292 00
Rossland, B.C.	20 00					20 00
Toronto, Ont.	270 00					270 00
Vancouver, B.C.	30,480 00	1,340 00	610 00	280 00	167 00	32,881 00
Victoria, B.C.	58,910 00	1,528 00	520 00	370 00	320 00	61,648 00
Ottawa, Department of the Interior. .	1,890 00	822 00	2,192 00	2,495 00	2,380 00	9,779 00
Rat Portage, P. H. Austin.		340 00	380 00	300 00	60 00	1,080 00
London, The High Commissioner.	29 98	120 00	119 80	195 00	20 07	484 85
Liverpool, The Immigration Agent. .	219 93					219 93
Glasgow, The Immigration Agent.	59 98	10 13			111 45	181 56
Total.	116,243 89	227,354 13	126,709 80	125,861 00	118,312 02	714,480 84

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No. 19.

REPORT OF THE CROWN TIMBER AGENT AT WINNIPEG.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
WINNIPEG, MANITOBA, September 8, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I beg to submit the following report upon the operations of the Winnipeg Crown Timber Agency during the twelve months ended June 30 last ; also such other information relative to the lumber and fuel trade within the district as it is thought will be found useful and of interest.

From careful compilation it is found that the following quantity of lumber was disposed of, principally in Manitoba, during the year, the sales having been effected by the following manufacturers :—

	Feet, B.M.
The Rat Portage Lumber Company, Rat Portage.....	60,000,000
The Keewatin Lumber Company, Keewatin.... . . .	20,000,000
The Savanne Mills Lumber Company, Savanne	5,000,000
The Pigeon River Mills Lumber Company, Port Arthur.	10,000,000
Vigars & Co. Mills, Port Arthur..	4,000,000
Wabigoon Lumber Company, Wabigoon..	2,500,000
Mills in British Columbia..	20,000,000
Mills in Manitoba operating on Crown lands under license..... .	22,784,783
Mills in Manitoba operating on Crown lands under permit (approx).....	5,000,000
Mill in Manitoba, cut on homesteaders' free permits (approx).....	3,000,000
Sawn lumber imported from the United States.....	13,228,000
Total... .	165,512,783

For a considerable number of years past the mills at Rat Portage have cut largely of logs brought down the Rainy river from the State of Minnesota. Owing to the growing demand for lumber in that state and the Dakotas, and to the fact that timber there which is tributary to our waters is becoming scarce, the importation of round timber has greatly fallen off in the last two years. The quantity brought in during the present year was about 20,000,000 feet B.M.

Through the courtesy of the officers of the Department of Customs, I am able to give the quantity of sawn lumber dutiable, and of the free class, imported during the

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year to the province :—13,228,000 feet, which figures show a slight falling off compared with importations of last year, which amounted to 15,835,000 feet.

This lumber comprised, oak, ash, cherry and mahogany, for use of manufacturers of furniture and for fine interior finishings, but consisted principally of red and white pine, as will be observed from the following figures :—

	Feet, B.M.
Cherry, whitewood, &c.	15,000
Mahogany.	4,000
Oak.	682,000
Pitch pine.	93,000
White ash.	33,000
Pine, hewn and sawed.	49,000
Pine, sawed boards and dimension timber.	11,039,000
Pine clapboards.	10,000
Pine, sawed boards, tongued and grooved.	1,285,000
Pine, lumber and timber manufactured	18,000
Total free and dutiable.	13,228,000

Small importations of shingles are still made, but these are gradually falling off. The cedar shingle manufactured in British Columbia is now largely taking the place of all other kinds.

The importation in 1902, amounted to.	1,842,000
“ 1901 “	3,357,000
“ 1900 “	10,235,000

The demand for building material of all kinds has been extremely active during the year, which has caused prices all round to increase.

Spruce lumber sold wholesale at from \$15 to \$22 per M. ft., and pine and cedar from \$18 to \$45, according to quality and finish; lath, \$3.75 to \$4, and British Columbia shingles, \$2.65 to \$3.15.

The lumber manufactured at mills operating under government licenses is for the most part retailed at the mill. As stated before, the sales for the year were 22,784,783 feet. For many years past these figures have remained about the same. While not to the same extent as formerly a factor in regulating the selling price of imported lumber, it still has an influence in that direction. Where it is chiefly felt is at points where local mills are operated. The low rate of dues charged by the government enables manufacturers to undersell the imported article to the advantage of the purchasing settler. Comparing prices for lumber and building material in Manitoba at the present time, with those for the same kind and quality in the bordering states, they are considerably lower.

FUEL.

The following figures represent approximately the amount of coal sold in the district during the year :—

	Tons.
American anthracite.	39,500
American bituminous.	5,000
Canadian anthracite.	500
Canadian bituminous (Galt).	18,000
Canadian lignite (Souris).	50,000

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The demand for our native coal is rapidly growing ; that from the fields at Souris is now being used in the homes of hundreds of families in the cities and on the farm, who find it a cheaper and more satisfactory fuel than wood. I predict a very large demand for this coal in the near future.

The price at which coal sold on the car during the year is as follows :—

	Per Ton.
American anthracite.	\$ 10 00
American bituminous.	7 25
Canadian anthracite.	9 50
Canadian bituminous.	7 00
Canadian lignite (Souris) at Winnipeg.	3 50
Canadian lignite (Souris) at Brandon.	3 20
Canadian lignite (Souris) at Regina.	3 30

The prices were about the same as in the preceding year, excepting for American anthracite, which was 50 cents per ton higher.

As nearly as can be ascertained the quantity of wood sold on the Winnipeg market during the year amounted to 120,000 cords, of which quantity only 4,030 cords came in from the United States.

The following prices were obtained, viz. :—

Poplar, car lots at Winnipeg	\$ 2 60 to \$ 2 90
Tamarack, car lots at Winnipeg	3 75 to 4 25
Spruce, car lots at Winnipeg.	2 60 to 3 00
Jackpine, car lots at Winnipeg.	3 40 to 3 75
Oak, car lots at Winnipeg.	4 00 to 4 40

Owing to the scarcity of snow last winter a large quantity of cordwood could not be got out and had to be left where cut. There was a shortage on this account, which caused a slight increase in the selling price.

FOREST FIRES.

No damage to the timber of any importance occurred through fire during the year. This was due to the wet spring and fall, and to the efforts put forth by the guardian service inaugurated by the Forestry Branch of the department.

MINING.

The prospecting for gold still continues to be carried on in south-eastern Manitoba. Twenty-one new claims were recorded at the office during the year, and a large number of renewals have been granted for old claims which are being developed.

There have been some very rich specimens of gold bearing rock taken from this district, and many of the claims give good promise and will no doubt be worked when capital can be obtained for the purpose.

STONE, GYPSUM AND CEMENT.

The largely increasing demand for these commodities has given a decided impetus to trade in the native product.

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The stone quarries at Stony Mountain, Tyndall and Selkirk are being worked to their fullest extent in supplying the building trade in Winnipeg and other points in Manitoba.

The Manitoba Union Mining Company (Limited), of Winnipeg, have greatly increased their output of plaster of paris and cement during the year. The native article sells at a price considerable under that imported and is now being extensively used by our builders.

The plaster of paris manufactured from the gypsum quarries at Lake St. Martin, is of the finest quality and is used in high class work.

ROUTINE WORK.

The work in the office is steadily increasing in volume, and during the year it was found necessary to make additions to the staff.

Owing to my inspection duties taking me so much away from the office, it was deemed advisable to advance Mr. A. F. Crowe, of the staff, to the position of assistant agent, and to make him responsible in a large measure for carrying on the work of the office.

The revenue collected during the year, exclusive of payments made direct to head office, amounted to \$46,745.90, as shown in Schedule 'A' appended.

Respectfully submitted,

E. F. STEPHENSON,
Crown Timber Agent.

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SCHEDULE A.

STATEMENT of Receipts from Timber, Grazing, Hay and Mining Lands, Collected at the Winnipeg Agency, for the Fiscal Year ended June 30, 1902.

Month.	Bonus.	TIMBER DUES.						GRAZING LANDS.		HAY LANDS.		Mining Fees and Royalty.	Totals.
		Ground Rents.	Royalty.	Permits.	Seizures.	School Lands.		Dominion Lands.	School Lands.	Dominion Lands.	School Lands.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1901.													
July.	546 17	1,094 26	1,430 10	128 89	11 70	4 45	161 40	334 60	47 50	3,736 87			
August	1,678 22	829 34	3,618 29	87 50	47 00	54 05	1 70	7 20	22 50	6,343 10			
September	404 49	372 68	1,770 25	136 75	7 75	6 10	3 00	1 00	102 50	1,090 42			
October	375 04	1,731 93	1,120 33	216 00	136 75	4 84	19 20	0 50	145 00	4,197 57			
November	250 00	624 47	1,799 96	151 75	136 75	4 84	19 20	0 50	5 00	1,742 08			
December	185 38									2,937 05			
1902.													
January	3 77	2,875 08	1,698 34	62 50	36 00	4 45	9 60	4 40	20 00	4,714 14			
February		62 61	876 94	66 30	1 50			0 20	30 25	1,040 00			
March		735 07	2,133 05	427 75	75 50			1 86	42 75	3,759 41			
April	320 79	1,101 12	2,136 00	67 16	21 43		16 80	67 60	7 50	4,929 71			
May	1,146 40	183 13	259 01	29 05	0 25	1 60	9 60	23 96	12 50	1,474 33			
June	889 79	901 88	1,628 98	7,343 13	5 50		47 20	51 89	147 50	10,811 22			
Totals.	6,294 88	10,564 57	18,716 10	8,763 28	296 38	15 34	102 40	366 05	583 00	46,745 90			

Payments made direct to Head Office, on account of the Agency, have not been included in this statement.

E. F. STEPHENSON,
Crown Timber Agent.

WINNIPEG, July 1, 1902.

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SCHEDULE

SHOWING the Saw Mills in the Province of Manitoba operating under Gov-

Name.	Situation of Mill.	Kind of Power	Location of Limit.	Lumber Manufactured.	Lumber sold from quantity manufactured and from that on hand from previous year.	Lumber on Hand.
Peter McArthur....	Lake Winnipegosis..	Steam	Lake Winnipegosis..	1,252,142	2,200,776	424,767
Wm. Robinson.....	Selkirk.....	"	Lake Winnipeg.....	2,799,826	3,169,826	720,000
James Drake.....	Bad Throat River...	"	Bad Throat River...	695,796	105,796	625,000
John Hanbury.....	Brandon.....	"	Duck Mountain.....	4,406,204	5,202,140	1,364,700
Dauphin Lumber Co.	Riding Mountain...	"	Riding Mountain...	72,505	199,116	.....
Kristjan Finnson...	Icelandic River.....	"	Icelandic River.....	11,175	81,175	.....
J. D. McArthur....	Lac du Bonnet.....	"	Lac du Bonnet.....	2,228,057	1,247,000	981,057
Thomas & Co.....	Tp. 18, R. 3, East...	"	Tp. 18, R. 3, East...	103,617	81,962	21,655
Joseph T. Thomas...	" " " " " " " "	"	" " " " " " " "	18,848	134,500	13,348
Stewart Thomas...	" " " " " " " "	"	" " " " " " " "	.....	.....	.....
G. B. Housser.....	Riding Mountain...	"	Riding Mountain...	1,216,278	676,278	600,000
A. L. Wells.....	Washow Bay.....	"	Washow Bay.....	543,649	750,724	.....
Wm. Peden.....	Rosburn.....	"	Riding Mountain...	178,980	83,980	95,000
Thomas Fulton....	Tp. 38, R. 5, W. 2nd	"	Tp. 38, R. 5, W. 2nd	.....	112,639	97,202
Shaw Bros.....	Riding Mountain...	"	Riding Mountain...	1,118,565	664,870	1,552,865
D. E. Sprague.....	Winnipeg.....	"	Rosseau River.....	4,667,769	4,526,580	1,090,278
D. H. Harrison....	Ochre River.....	"	Riding Mountain...	594,260	465,986	609,792
Theo. A. Burrows...	Garland.....	"	Pine River.....	.....	98,772	32,566
Lac du Bonnet Co....	Lac du Bonnet.....	"	Lac du Bonnet.....	53,333	393,333	.....
J. H. McClure.....	Tp. 19, R. 2, E.....	"	Tp. 19, R. 2, East...	289,000	178,000	147,000
Hooker & Co.....	Pt. Grand Maraisé..	"	Pte. Grand Maraisé..	50,000	50,000	.....
Wm. & M. Ritchie...	Ochre River.....	"	Ochre River.....	180,000	180,000	.....
Mackenzie, Mann & Co	Fisher's Siding...	"	Sinclair River.....	3,550,865	2,181,330	2,119,535
R. C. Dowson.....	Tps. 25 & 26, R. 26, W. 1	"	Tps. 25 & 26, R. 26, W. 1	200,000	200,000
				24,290,869	22,784,783	10,694,706

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B.

ernment License, for the year between June 30, 1901, and June 30, 1902.

Shingles Manufactured.	Shingles sold from quan. mfd. and from that on hand from prev. year.	Shingles on hand.	Lath Manufactured.	Lath sold from quan. on hand and from that mfd. during the year	Lath on hand.	R'y ties manufactured.	R'y ties sold.	Piling manufactured	Piling sold.	Last Return.	Remarks.
								Lin. ft	Lin. ft	1902. June 30.	
16,000	20,750		103,400	128,600							
								5,011	5,011	"	{ 3,811 railway ties on hand from previous year.
214,250	131,250	83,000								"	
										"	
						30,386	30,386	8,895	8,895	"	
95,525	95,525									"	
27,000	27,000									"	
10,000	10,000									"	
										"	
337,000	365,000	202,250	89,050	83,850	13,750					"	
						528	528			"	
44,000	31,000	14,000						6,000	2,434	"	{ The 6,000 Lin. ft. piling were on hand from prev. year. 3,566 ft. still on hand.
										"	
										"	
								1,000	1,000	"	{ The 243,000 ft. B.M. on hand last year were transferred to Mr. Sprague, and therefore included in his returns this year.
										"	
			82,900	82,900		232,783	232,783	62,678	62,678	"	{ 201,501 r'y ties cut under permits and 31,282 on berth 823 The 62,678 lin. ft. piling were cut under permits, as well as 1,601,543 ft. B.M. of the total quantity of lumber.
										"	
743,775	680,525	299,250	275,350	295,350	13,750	263,697	263,697	83,584	80,018		

E. F. STEPHENSON,
Crown Timber Agent.

2-3 EDWARD VII., A. 1903

No. 20.

REPORT OF THE CROWN TIMBER AGENT AT PRINCE ALBERT.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
PRINCE ALBERT, SASKATCHEWAN, July 16, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to inclose herewith the following statements for the year ending June 30, 1902.

Schedule 'A.'—Statement of receipts on account of Crown timber, grazing, mining and hay.

Schedule 'B.'—Statement showing saw-mills operating under government license.

Schedule 'C.'—Statement showing general official work during the year.

The output of the mills is steadily increasing, and is now entirely consumed by local demand.

Your obedient servant,

J. W. HANNON,
Crown Timber Agent.

SESSIONAL PAPER No. 25

SCHEDULE A.

STATEMENT of Receipts from Timber, Grazing and Hay Lands at the Crown Timber Office, Prince Albert, for the twelve months ending June 30, 1902.

Month.	Dominion Lands.	School Lands.	Total.
1901.	\$ cts.	\$ cts.	\$ cts.
July.....	928 16	16 20	944 36
August.....	36 75	0 40	37 15
September.....	1,853 29		1,853 29
October.....	1,101 64		1,101 64
November.....	24 25		24 25
December.....	438 30	12 80	451 10
1902.			
January.....	185 88	3 50	189 38
February.....	183 75		183 75
March.....	787 30		787 30
April.....	2,766 92	40 60	2,807 52
May.....	118 28	15 50	133 78
June.....	642 43	5 00	647 43
Total.....	9,066 95	94 00	9,160 95
Revenue collected at Head office.....	3,315 21		3,315 21
Totals.....	12,382 16	94 00	12,476 16

CROWN TIMBER OFFICE,
PRINCE ALBERT, July 10, 1902.

J. W. HANNON,
Crown Timber Agent.

2-3 EDWARD VII., A. 1903

SCHEDULE B.

STATEMENT showing Saw-mills in the Prince Albert district operating under Government License, during the year ending June 30, 1902.

Name of Owner.	Horse power.	Capacity per 12 hours.	Commenced operations.	Description of timber.	Kind of power.	Logs, where cut.	Quantity of lumber manu- factured during the year.	Feet.	Quantity of shingles manufactured during the year.	M.	Quantity of shingles sold during the year.	M.	Quantity of lath manu- factured during the year.	Quantity of lath sold during the year.	Date of last return.
Jas. Sanderson.....	120	30,000	1890	Spruce, jack- pine, luma- rac and po- plar.	Steam...	Limits north of Sturgeon Lake.	1,321,388	1,991,307	4503	429	.....	.....	.....	.....	June 30, 1902.
Wm. Cowan & Co.....	140	32,000	1890		"	Limits up Little Red River.	2,038,583	3,187,412	296	378½	.....	.....	.....	.....	"
J. W. Shannon & Co....	35	14,000	1899		"	Limits, Berth No. 848.	909,690	1,044,242	.....	.....	.....	.....	.....	.....	"
							4,869,581	6,222,961	746,666	897,750	.....	.....	.....	.....

J. W. HANNON,
*Crown Timber Agent.*CROWN TIMBER OFFICE,
PRINCE ALBERT, July 10, 1902.

SESSIONAL PAPER No. 25

SCHEDULE 'C.'

GENERAL return of the Crown Timber Office, Prince Albert, for the year ending June
30, 1902.

Timber permits issued....	434
Hay permits issued....	40
Timber seizures....	16
Free miners' certificates issued....	2
Mill returns received....	12

J. W. HANNON,
Crown Timber Agent.

CROWN TIMBER OFFICE,
PRINCE ALBERT, July 10, 1902.

2-3 EDWARD VII., A. 1903

No. 21.

REPORT OF THE CROWN TIMBER AGENT AT EDMONTON.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
EDMONTON, ALBERTA, August 20, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to inclose herewith Schedules 'A' and 'B' relating to the work of the Timber and Mines Branch of this Agency, for the year ending June 30 last.

The revenue collected at this office, including payments made at the head office, was \$8,998.85, being about double that of the preceding year.

Your obedient servant,

A. G. HARRISON,
Crown Timber Agent.

SESSIONAL PAPER No. 25

SCHEDULE A.

STATEMENT of Receipts from Timber, Grazing, Hay and Mining at the Edmonton Office, for the twelve months ending June 30, 1902.

Month.	Dominion Lands.	School Lands.	Total.
1901.	\$ cts.	\$ cts.	\$ cts.
July.....	359 75	21 50	
August.....	101 90	10 50	
September.....	56 80		
October.....	1,495 80		
November.....	192 00	2 75	
December.....	119 25		
1902.			
January.....	1,582 39	45 00	
February.....	918 30	21 60	
March.....	586 15		
April.....	380 91	98 68	
May.....	295 21	47 25	
June.....	217 39	458 00	
Total.....	6,305 85	705 28	
Head Office.....	1,987 72		
Totals.....	8,293 57	705 28	
Grand total.....			8,998 85

CERTIFIED CORRECT,

A. G. HARRISON,
Crown Timber Agent.

2-3 EDWARD VII., A. 1903

SCHEDULE B.

RETURN of Saw-mills operating in Edmonton Crown Timber Agency under Government License during the year ending June 30, 1902.

Name of Owner or Assignee.	Where situated.	Kind of power.	No. of horse power.	Operation begun.	Log-section Limit No.	Lumber manufac- tured in period, B. M.	Lumber sold in period, B. M.	Date of last return.	Kind of timber.	No. of returns made
D. R. Fraser & Co.	Edmonton.	Steam	100	1899	788	Nil.	Nil.	1902.		
John Walter.	Strathcona	"	120	1900	881	163,220	50,001	June 30,	Spruce	13
"	"	"	120	1900	864	372,081	372,081	" 30	"	2
Bank of Ottawa (Oper. by D. R. Fraser & Co., & J. Walter).	Edmonton & Strathcona	"	100-120	1900	495	432,587	832,944	" 30	"	10
"	"	"	100-120	1900	9 Bl. 5-6	1,003,093	2,258,441	" 30	"	9
"	"	"	100-120	1900	302	Nil.	Nil.	" 30	"	10
James F. Fetherstonhaugh.	Fort Saskatchewan.	"	Not given.	1901	956	32,722	32,722	" 30	Spruce	6
J. A. Powell.	Half Moon Lake.	Not given.	"	"	849	Nil.	Nil.	" 30	"	6
S. J. Eccles.	Spruce Grove.	Steam.	"	1901	928	191,583	146,175	" 30	Spruce	7
Foulger & Rowley.	Ponoka.	Not given.	"	1901	949	231,970	266,970	" 30	"	4
L. E. Benz.	Crooked Lake.	"	"	1900	860	5,000	20,000	" 30	"	6
Branchier, Guin & Co., or (Deering Implement Co.).	Stony Plain.	"	"	1900	887	15,000	Nil.	" 30	"	10
W. S. Durnell	"	"	"	"	972			" 30	"	6
"	"	"	"	"	971			" 30	"	3
"	"	"	"	"	970			" 30	"	3
"	"	"	"	"	968			" 30	"	3
"	"	"	"	"	963			" 30	"	4
"	"	"	"	"	962			" 30	"	4
"	"	"	"	"	955			" 30	"	4
						3,614,106	3,900,284			

CERTIFIED CORRECT,

A. G. HARRISON,
Crown Timber Agent.

SESSIONAL PAPER No. 25

No. 22.

REPORT OF THE CROWN TIMBER AGENT AT CALGARY.

DEPARTMENT OF THE INTERIOR,
CROWN TIMBER OFFICE,
CALGARY, ALBERTA, July 19, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to inclose the following statements for the twelve months, ended June 30, 1902 :—

Schedule 'A.'—Statement of receipts on account of Crown timber covering the period referred to, amounting to \$12,155.94.

Schedule 'B.'—General office work.

Schedule 'C.'—Showing the saw-mills within the Crown timber agency, operating under government license, to June 30, 1902.

The lumber business is in a very flourishing condition.

Your obedient servant,

J. R. SUTHERLAND,
Crown Timber Agent.

2-3 EDWARD VII., A. 1903

SCHEDULE A.

STATEMENT of Receipts on account Timber, Grazing and Hay Lands at the Crown Timber Office, Calgary, for the twelve months ending June 30, 1902.

Month.	Dominion Lands.	School Lands.	Grand Total.
	\$ cts.	\$ cts.	\$ cts.
1901.			
July	1,262 84	119 70	
August	798 83	32 50	
September	182 97	5 50	
October	963 74	0 75	
November	160 35		
December	196 40	25 60	
1902.			
January	935 15	6 40	
February	325 70	25 60	
March	178 67		
April	2,276 58	70 60	
May	1,315 88	53 90	
June	139 90	58 00	
Totals	8,737 01	398 55	
Collected at Head Office	3,029 38		
	11,757 39	398 55	12,155 94

J. R. SUTHERLAND,
Crown Timber Agent.

SCHEDULE B.

GENERAL Office Return of the Calgary Crown Timber Agency for the year ending
June 30, 1902.

Description of Return.	Number.	Compared with last year's report.		Remarks.
		Increase.	Decrease.	
Letters written.....	5,686	1,098	.....	Including Dominion Lands.
Letters received.....	9,735	2,801	.....	" "
Permits issued subject to dues.....	52	28	.....
Free permits issued.....	287	107	.....
Mill returns received and verified.....	20	.....	4	

J. R. SUTHERLAND,
Crown Timber Agent.

2-3 EDWARD VII., A. 1903

SCHEDULE C.

Showing the Saw-mills in the Calgary Crown Timber Agency operating under Government Licenses, for the year ending June 30, 1902.

No.	Name of Owner or Owner and Assignee.	Mill Where Situated.	Kind of Power.	Horse Power.	Commenced Operations.	Description of Timber.	Logs Cut at	Lumber on hand, June 30, 1901. Sold and manufactured during period between June 30, 1901, and June 30, 1902.	Quantity of shingles manufactured and sold since July 1, 1901.	Date of last return.	No. of returns.	Remarks.
1	Hon. Peter McLaren, Mountain Mill.....	Mill Creek.....	Water	20	1882	Spruce and Fir	Mill Creek.....	Feet. Balance, June 30, 1901... 19,196 Manufactured since... 222,320 Sold..... 149,869 Balance..... 91,647	Nil	June 30, 1902.	4	
2	Hon. Peter McLaren, McLeod Mill.....	.....	Steam	40	1882	"	Old Man's River.	Balance..... 693,274 Manufactured..... 3,446,850 Sold..... 4,140,124 Balance..... 833,729	"	June 30, 1902.	4	
3	Evan Clair and Bow River Lumber Co.,.....	Calgary.....	Steam	65 can work up to 175	1887	Spruce and Fir and Cypress pine.	Kananaskis Riv.	Balance..... 2,527,677 Manufactured..... 3,259,065 Sold..... 3,167,097 Balance..... 2,719,675	"	June 30, 1902.	4	
4	R. G. Belvidere, now being operated by Joseph Wray.....	Mountain View.	Steam	25	1891	Spruce and Fir	St. Mary's River	Balance..... Nil Manufactured..... 43,198 Sold..... 40,898 Balance..... 2,300	"	Dec. 31, 1901.	2	
5	John Lineham.....	Okotoks.....	Steam	50	1890	Spruce and Fir	Sheep Creek....	Balance..... 701,484 Manufactured..... 852,500 Sold..... 795,095 Balance..... 738,889	"	Mar. 31, 1902.	3	

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H. B. DeWolf.....	N'th Fork Old Steam Man.	25	1898	" "	Old Man's River	Balance	5,213	"	Sept. 30, 1901.	1
						Manufactured	Nil.			
						Sold	"			
						Balance	5,213			
Wm. Smibert.....	Cypress Hills	Steam	Balance	106,500	"	Dec. 31, 1901.	2			
			Manufactured..	90,000						
			Sold	156,500						
			Balance	40,000						
Total balance on hand June 30, 1901.....						4,053,344				
" manufactured during year ended June 30, 1902						7,934,473				
" sold						8,390,093				
Balance on hand, June 30, 1902.....						3,597,724				
									Total.....	29

J. R. SUTHERLAND,
Crown Timber Agent.

2-3 EDWARD VII., A. 1903

No. 23.

REPORT OF THE CROWN TIMBER AGENT AT NEW WESTMINSTER.

DEPARTMENT OF THE INTERIOR,
CROWN TIMBER OFFICE,
NEW WESTMINSTER, B.C., July 25, 1902.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I beg to submit my annual report for the twelve months, ended June 30, 1902.

The receipts of this office for the fiscal year ended June 30, 1902, amounted to \$57,919.27, as shown in the accompanying statement. Please add thereto any moneys which have been paid at the head office on account of bonuses, royalty, ground rent, &c., on timber berths situated within the Dominion railway belt.

I also inclose you schedule of mills doing business within the railway belt, which gives the usual statistics respecting the lumber trade.

I may say that the lumber business has been very brisk in this province during the past year, the mills having been cutting to their full capacity and the cedar shingle business has particularly shown a marked increase, both as regards increased demand and enhanced prices of this commodity.

Although the lumber and shingle trade has increased so largely I might state that a very large proportion of the timber is cut under provincial leases, and therefore does not show in my statement.

The lumbermen expect a large increase in the export trade, consequent upon peace having been declared in South Africa, and matters having quieted down in China the trade with that country is assuming a bright outlook.

There is apparently a considerable demand for pulp material, and I might state that several companies having secured large tracts of pulp wood from the provincial government, propose to erect plants for the manufacture of goods made from pulp. Kamloops is mentioned as a point at which one plant is to be erected.

The lumbermen expect a large trade with the North-west Territories and Manitoba in lumber, and are apparently justified in anticipating same, owing to the very favourable reports of the prospect for the grain crop and the largest influx of settlers into those parts.

I may report that the fire warden system during the past season has been very successful in preventing the destruction of timber by fires, and, so far, during the present season, this province has been entirely free from fire, while in the State of Washington there has been a very large quantity of timber already destroyed during the month of June, estimated at the value of over a million dollars.

I would respectfully suggest that more fire wardens be employed than are at present on duty.

Respectfully submitted,

JAMES LEAMY,
Crown Timber Agent.

SESSIONAL PAPER No. 25

STATEMENT of Receipts of New Westminster Crown Timber Agency for Fiscal Year
ending June 30, 1902.

Month.	Ground Rent.	Royalty.	Permit Dues.	Seizure Dues.	Total.
1901.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
July	2,289 75	1,529 14	132 50	250 00	4,201 39
August.	395 18	1,379 97	195 25	71 73	2,942 13
September.....	31 84	8,255 60	125 00	.....	8,413 44
October	12 57	1,087 02	.....	.....	1,099 59
November.....	0 49	623 71	113 50	16 23	753 93
December.....	47 00	5,170 94	212 50	.....	5,430 44
1902.					
January		1,219 90	168 25	.....	1,388 15
February.....	12 68	3,726 20	316 52	.....	4,054 80
March.....	36 75	67 57	366 00	9 54	479 86
April.....	505 75	5,437 80	175 50	.....	6,119 05
May.....	6,146 21	477 01	860 27	.....	7,483 49
June.....	1,032 30	574 95	348 50	1 50	1,957 25
	10,509 92	29,549 81	3,014 79	349 00	43,423 52
Collected at Head Office.....					14,495 75
Grand total.....					57,919 27

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LIST of Mills operating in Dominion Railway Belt of British Columbia
ended June

Name of Owner.	Where Situated.	Capacity of Mill	Kind of Power.	Operating on Limit No.	Locality of Limit.	Quantity of lumber manu- factured.
		Ft.				Ft.
J. R. & T. J. Reilly.....	Ottertail.....	7,000	Steam	5	Kicking Horse Riv..	383,151
W. C. Wells.....	Palliser.....	30,000	"	3 & 29	Beaverfoot & Kick- Horse River.	2,745,094
Columbia River Lumber Co	Golden.....	40,000	"	256, 255, 257, 16, 17, 232	Columbia River.....	5,199,814
"	Beaver.....	100,000	"	14, 15, 16	"	6,463,980
Yale Columbia	Nakusp.....	30,000	"	114	"	937,843
Fred Robinson	Revelstoke.....	30,000	"	118, 123, 207, 249	"	2,120,836
"	Comaplix.....	30,000	"	Not oper'g		
" shingle mill	Wigwam.....	30 M. shingles	"	118	Columbia River.....	
McMahon Bros.	Revelstoke.....	70 M. shingles	"	Not oper'g		
Revelstoke Lumber Co...	" Big Eddy.	40,000	"	Not oper'g on Dom. lands...		
Columbia River Lumber Co	Kualt.....	40,000	"	239, 66, 72, 78, 45	Notch Hill, Eagle River & Shuswap Lake.	2,902,636
" Portable Mill	Notch Hill.....	15,000	"	239	Notch Hill.....	879,366
Ashcroft Water, Electric and Improvement Co.	Kamloops.....	50,000	"	240, 263	Shuswap Lake.....	924,411
Harrison River Mills, T & T Co.	Harrison River...	75,000	"	63, 227, 248, 254	Harrison River & Lake.	6,645,483
E. H. Heaps & Co.....	Ruskin.....	25,000	"	183, 96, 33, Bl'ks. 1, 3, & 4	Stave River & Lake.	454,672
"	Vancouver.....	100,000	"	Not oper'g Dom lands		
McLaren & Ross.....	Millside.....	120,000	"	"		
Brunette Saw Mill Co...	Sapperton.....	70,000	"	33bk 2138,	Stave River.....	572,371
B. C. Mills, Timber & Trading Co.	New Westminster.	90,000	"	'B.'	Mud Bay.....	
B. C. Mills, Timber & Trading Co.	Vancouver, B.C...	225,000	"	'O.'	North Arm, B. Inlet	168,120
Grant & Kerr.....	Ladner.....	20,000	"	'Q' & 103	Mud Bay & Stave Riv	588,000
Pacific Coast Lumber Co..	Vancouver...	225 M. shingles	"	Not oper'g		
Hastings Shingle Mfg. Co.	"	225 M. shingles	"	52	Port Moody.....	579,798
Canadian Pacific Lum. Co.	Port Moody...	75,000	"	111	Coquitlam River....	788,216
North Pacific Lum. Co...	Barnet.....	100,000	"	Not oper'g		
G. E. Farrer.....	Vancouver.....			209	North Arm B. Inlet.	622,046
K. Mikuni.....	"			246	"	
Thos. Allen.....	Sapperton.....			236	Pitt Lake.....	391,947
						33,363,844

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and Statement showing Quantity of Timber manufactured during fiscal year 30, 1902.

Quantity of lumber sold from quantity manufactured and quantity on hand previous year.	Quantity of lumber on hand.	Quantity of shingle bolts manufactured.	Quantity of shingle bolts sold.	Quantity of shingle bolts on hand.	Quantity of laths manufactured.	Quantity of laths sold.	Quantity of railway ties manufactured.	Quantity of railway ties sold.	Quantity of railway ties on hand.	No. of Mill returns received.	Date of last return.
Ft.	Ft.	Cords.	Cords.	Cords.			Pcs.	Pcs.	Pcs.		1902.
320,801	319,792						9,530	9,530		4	June 30.
3,623,924	1,570,042									8	"
5,289,713	1,321,163						132,789	132,789		24	"
8,190,119	2,764,396				751,100	751,100	29,445	29,445		12	"
937,843										4	"
2,120,836	50,000	754	754		620,000	620,000				16	"
2,866,594	575,251						32,311	32,311		20	"
805,799	248,866						2,982	2,982		4	"
500,000	924,411						7,531	3,765	3,766	8	"
5,162,011	3,705,747									16	"
454,672		2,549½	2,047	1,310½						12	"
573,371										8	"
4,009,277										4	"
168,120		59	50							4	"
1,092,026	388,000									8	"
875,798	150,000	983½	933½							4	"
788,216				300						4	"
622,046		490½	490½							4	"
391,947		732	742½	450						4	"
39,397,113	12,017,668	5,568½	5,026½	2,060½	1,371,100	1,371,100	214,588	210,822	3,766	172	

2-3 EDWARD VII., A. 1903

No. 24.

REPORT OF THE ORDNANCE AND ADMIRALTY LANDS BRANCH.

DEPARTMENT OF THE INTERIOR,

OTTAWA, August 11, 1902.

JAS. A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the following report on the transactions of the Ordnance and Admiralty Lands Branch of this Department, for the fiscal year ended June 30, 1902.

The four schedules annexed, marked respectively 'A,' 'B,' 'C' and 'D,' show in a summarized form the receipts for the year, the amount of purchase money and rent or interest remaining due and unpaid, and the several localities in which the properties are situated from the sales or rentals of which the revenue was derived.

'A.'—Statement of sales made during the fiscal year. This includes lots redeemed by Ottawa tenants in accordance with the provisions contained in the leases originally granted by the Imperial authorities.

Total amount \$36,148.47, of which sum \$10,026.35 has been received on account.

The following properties were disposed of during the year : At Grand Falls, N.B., 39 lots, together comprising an area of about 395 acres, were disposed of for the sum of \$2,152.67, of which amount \$718.55 has been paid on account. Four of these lots have been paid for in full and letters patent issued therefor, while the remaining lots were sold on the usual conditions governing ordnance lands sales.

(2.) At Longueuil, two small lots, forming part of the government farm, were sold at public competition for \$168.05, or at the rate of \$435.60 per acre, of which amount \$42.05 has been paid on account. The remainder of the government farm in question, with the exception of about three acres leased to the school commissioners of St. John Baptist, of Montreal south, nearly two acres leased to the Protestant school commissioners, of Longueuil, and a small triangular piece of land, containing two acres more or less, bequeathed to the Crown on condition that it should never be disposed of, comprising an area of 185 acres (nearly), was sold at public auction for the sum of \$31,000, on the usual conditions governing ordnance lands sales.

(3.) At Ottawa, three vacant city lots, situated in lower town, were sold at public competition for the sum of \$1,640, of which amount, \$328 was paid at the time of sale, the balance to be paid in four equal annual instalments, with interest at 5 per cent per annum on the purchase money remaining unpaid. Three half, and three ordinary city lots, formerly held under lease, have, by the payment of \$862, made by the respective lessees, been converted into freehold, in accordance with the terms and conditions contained in the original leases granted by the Imperial authorities.

(4.) At Sorel, P.Q., a beach lot comprising an area of one and a quarter acres was disposed of to the proprietor of the adjoining land for a cash price of \$325.75 and letters patent issued therefor.

A renewal lease for a small piece of land at Burlington Beach, Ontario, was issued for a term of twenty-one years, at a rental of \$100 per annum instead of \$20 a year paid for a number of years previously.

The corporation of the village of Fort Erie having surrendered its lease of the site of 'Old Fort Erie,' comprising an area of 17½ acres, a license of occupation for this

SESSIONAL PAPER No. 25

property was granted to the Queen Victoria Niagara Falls Park Commissioners at a nominal rental on the conditions that the land should be fenced and beautified, the ruins of the 'Old Fort' preserved and the graves of the soldiers buried there protected from desecration.

In order to preserve the beauty of the lake shore at Fort Erie, Ontario, which was being marred by the removal of sand and other material therefrom by the inhabitants of the neighbouring municipalities, a narrow strip of ordnance land in that locality extending along the water's edge of the lake was leased to the municipality of the village of Fort Erie for a term of 21 years.

The Protestant School Commissioners, of Longueuil, P.Q., surrendered their lease of about three acres of the government farm, at Longueuil, and received in lieu thereof a lease for a like term and containing similar conditions of about two acres of the same property, but situated nearer the town.

About two acres of ordnance land at Grand Falls, N.B., having a very rocky uneven surface were leased as a piling ground for lumber for a term of ten years.

Tenders having been called for a lease of the ordnance reserve on the Ste. Croix river, near St. Andrews, N.B., comprising an area of 22 acres, 1 rood, 22 perches, that property was leased for a period of 21 years.

'B.'—Statement showing the several localities in which are situated the ordnance land on account of which moneys have been received. Total amount, \$16,967.36.

'C.'—Statement of amounts received monthly during the fiscal year, divided into principal, rent or interest and fees.

'D.'—Statement showing the amount due and remaining unpaid June 30, 1902, in the several localities where ordnance lands are situated, classified as rent or interest, and principal moneys. The total amount shown to be due is \$29,530.31, a decrease when compared with 1900-1901 of \$293.96. Of the amount remaining due and unpaid by tenants, \$18,150 is due by the government of the province of Quebec, and \$4,750 by lessees of ordnance lands in the city of Ottawa.

The routine work of the office was about the same as that of the immediately preceding years. During the year 429 letters were received, 573 letters were written, and upwards of 1,200 notices and statements of accounts mailed to tenants and purchasers in arrears; 28 assignments were examined and registered; 23 drafts of letters patent were prepared and 90 warrants issued for the Bank of Montreal, at Ottawa, to receive money. In addition to this more than 630 accounts now open with the respective purchasers and tenants of ordnance lands have been carefully kept.

I have the honour to be, sir,

Your obedient servant,

JAS. N. FERGUSON,

Clerk in Charge.

2-3 EDWARD VII., A. 1903

A.—STATEMENT of Sales made during the year ending June 30, 1902.

Locality.	Number of lots Sold or Redeemed.	Amount.	Amount Received on Account.
		\$ cts.	\$ cts.
Grand Falls	39	2,152 67	718 55
Longueuil	2 lots	168 05	42 05
"	185 acres more or less	31,000 00	7,750 00
Ottawa	3	1,640 00	328 00
"	6 redeemed	862 00	862 00
Sorel	1 beach lot	325 75	325 75
		36,148 47	10,026 35

JAS. N. FERGUSON,
Clerk in Charge.

DEPARTMENT OF THE INTERIOR,
ORDNANCE AND ADMIRALTY LANDS BRANCH,
OTTAWA, August 11, 1902.

B. STATEMENT showing the several localities on account of which moneys have been received during the fiscal year ending June 30, 1902.

Locality.	Amount.	Locality.	Amount.
	\$ cts.		\$ cts.
Amherstburg	2 00	Brought forward	11,257 86
Burlington Beach	100 00	Ottawa	2,706 44
Beaver Harbour	2 00	Owen Sound	9 00
Dalhousie	93 79	Oxford	0 60
Edmunston	28 00	Point Pelee	400 00
Elnisley	5 70	Prescott	238 11
Fort Cumberland	260 00	Presque Isle	1 50
Fort Erie	329 10	Quebec	890 00
Grand Falls	832 82	Sarnia	40 00
Grenville	2 20	Shelburne	30 90
Kingston	509 50	Sorel	371 05
Longueuil	8,093 05	St. Croix River	1 00
Montreal	1 00	Toronto	912 00
Nepean	988 70	Wolford	109 80
Niagara	10 00		
Carried forward	11,257 86	Total	16,967 36

JAS. N. FERGUSON,
Clerk in Charge.

DEPARTMENT OF THE INTERIOR,
ORDNANCE AND ADMIRALTY LANDS BRANCH,
OTTAWA, August 11, 1902.

SESSIONAL PAPER No. 25

C.—STATEMENT of receipts on account of Ordnance and Admiralty Lands for the fiscal year ending June 30, 1902.

Date.	Fees.	Rent or Interest.	Principal.	Total.
1901.	8 cts.	8 cts.	8 cts.	8 cts.
July	12 00	459 91	833 70	1,305 61
August	26 00	238 67	98 40	363 07
September		98 54	212 65	311 19
October	4 00	587 02	708 13	1,599 15
November		148 00	325 75	473 75
December		32 03	56 00	88 03
1902.				
January	2 00	632 80	7,850 00	8,484 80
February		40 80	.. ..	40 80
March	2 00	732 80	90 02	824 82
April	2 00	235 70	115 20	352 90
May	8 00	395 54	463 95	807 49
June	7 00	1,482 15	826 60	2,315 75
	63 00	5,383 96	11,520 40	16,967 36

JAS. N. FERGUSON,
Clerk in Charge.

DEPARTMENT OF THE INTERIOR,
ORDNANCE AND ADMIRALTY LANDS BRANCH,
OTTAWA, August 11, 1902.

2-3 EDWARD VII., A. 1903

D.—STATEMENT showing Amounts due and unpaid on account of Instalments of Purchase Money and Rent or Interest to June 30, 1902.

Locality.	Amount of instalments due and unpaid June 30, 1902.	Rent or inter- est due and unpaid June 30, 1902.	Total.
	\$ cts.	\$ cts.	\$ cts.
Beaver Harbour		2 00	2 00
Burlington Beach		240 00	240 00
Carillon		3 80	3 80
Chambly	152 00	191 52	343 52
Charlottetown		18 67	18 67
Dalhousie	19 75	2 43	22 18
Edmundston	293 56	136 04	429 60
Fort Cumberland		75 00	75 00
Fort Erie	58 00	11 60	69 60
Grand Falls	303 07	301 32	604 39
Kingston	50 96	240 72	291 68
Marlborough		50 00	50 00
Montreal		1 00	1 00
Nepean	1,634 60	383 09	2,017 69
Niagara	396 00	89 20	485 20
Oromocto		0 25	0 25
Ottawa	164 00	4,586 44	4,750 44
Owen Sound		54 50	54 50
Oxford		16 00	16 00
Pittsburg	6 00	2 88	8 88
Point Pelee		800 00	800 00
Pomroy Bridge		5 25	5 25
Quebec		18,180 00	18,180 00
Queenston		1 00	1 00
Shelburne		1 00	1 00
Sorel		221 66	221 66
Toronto		780 00	780 00
Wolford		57 00	57 00
	3,077 94	26,452 37	29,530 31

JAS. N. FERGUSON,
Clerk in Charge.

DEPARTMENT OF THE INTERIOR,
ORDNANCE AND ADMIRALTY LANDS BRANCH,
OTTAWA, August 11, 1902.

No. 25.

REPORT OF THE LAND PATENTS BRANCH

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,

OTTAWA, July 28, 1902.

JAS. A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to inclose herewith the various statements hereafter enumerated which are required in connection with the preparation of the annual report of the Department of the Interior for the fiscal year ended the 30th ultimo.

A reference to the statement marked 'A,' showing the number of homestead entries made at the several land agencies during the year reveals the fact that 14,633 entries were made, representing 43,545 souls, while the number of entries made during the previous year, although the largest number of entries granted up to that time in any one year, amounted to 8,167 entries only, representing 25,988 souls, being an excess this year over the previous year of 6,466 entries.

From the statement marked 'B,' showing the number and nature of letters patent issued for Dominion lands, it will be observed that 8,768 letters patent in all were issued during the year, covering a total area of 4,711,104 acres of land, as against 6,461 letters patent which were issued the previous year, covering an area of 6,846,857 acres of land, or an excess in the number of letters patent issued this year over that of the previous year of 2,307 letters patent, and a decrease in the total area of land patented of 2,135,753 acres, this decrease being explained by the fact that last year 6,255,816 acres of land were patented to railway companies, while this year 3,563,136 acres of land only were so patented, being a decrease of 2,692,680 acres of land as compared with the number of acres which were patented to railway companies the previous year. Last year letters patent were issued to railway companies for all lands which had been or could readily be scheduled, while this year Mr. R. E. Young, D.L.S., who has charge of this work, has had to deal with more intricate cases.

The statement last referred to also shows that out of the total number of letters patent which were issued this year 4,349 were for land, the title to which had been earned by homesteaders, covering an area of 687,896 acres, as against 1,886 letters patent which were issued during the previous year for an aggregate area of 299,946 acres of land, being an increase of 387,950 acres of land patented to homesteaders.

The same statement further shows that 1,342 letters patent were issued, covering an area of 285,110 acres of land, upon which North-west Half-breed land scrip has been located, as against 634 letters patent issued the previous year for an area of 136,484 acres, or an increase this year of 148,626 acres of land patented under this head, making in all 421,594 acres of land patented during the past two years on which land scrip granted to North-west Half-breeds had been located. With only a very few exceptions all these locations have been patented to the assignees of the locatees, which accounts for the comparatively large number of assignments which have been registered in the department during the past two years; 2,725 assignments, in all, have been registered during that period, 1,018 last year and 1,717 during the present year.

During the last four years the Commissioners appointed to investigate and adjudicate upon North-west Half-breed scrip claims, issued certificates for land scrip,

2-3 EDWARD VII., A. 1903

in addition to certificates calling for scrip redeemable in the purchase of Dominion lands, representing an aggregate area of 875,394 acres, which certificates may be located on any available Dominion lands in Manitoba and the North-west Territories of the class open to homestead entry ; and deducting from this last mentioned area the 421,521 acres patented during the past two years, and 1,278 acres patented in 1900, or, in all, 422,799 acres, there still remains outstanding an area of 452,595 acres of land, and, as the work of issuing scrip of all kinds to Half-breeds will, I understand, be completed during the present fiscal year, I anticipate that the greater portion of such outstanding area will be located and patented within the next two years, so that, from that source, we need not look for any increase of work in the future. The same reasoning seems to apply to lands to be patented to railway companies who have already earned their subsidies.

The number of homestead entries will, however, in all likelihood go on increasing from year to year for a number of years to come, and the work of the Patents Branch will grow in the same ratio. While, therefore, it may be possible to conduct the business of the branch in our present quarters for the next three or four years, I very much fear that after that time it will be quite impossible to carry on the work in an efficient and prompt manner without proper and more spacious accommodation being provided for.

All that portion of the correspondence which could be dealt with outside the branch has been for the last two years referred to the Assistant Secretary with the necessary instructions ; and, in so far as his inadequate staff would permit, he has been expeditious in carrying on this work. In my opinion, however, in order to ensure against any delay occurring in the correspondence, which at times with his present staff cannot be avoided, he should be given additional assistance.

The several changes which were inaugurated with your approval some three months ago in the mode of carrying on the work of the branch have proved most satisfactory.

I am glad in closing this report to be able to state that, notwithstanding the unprecedented increase in the business of the department, the work of the branch has, in my estimation, during the past fiscal year, been performed, through the exertion and effort of the whole staff, in a most expeditious and satisfactory manner.

The statements already referred to are marked and designated as follows :—

‘A.’—Showing the number of homestead entries made during the fiscal year ended June 30, 1902, as compared with the corresponding period of the previous year.

‘B.’—Abstract of all letters patent issued during the fiscal year ended June 30, 1902, as compared with the corresponding period of the previous year.

‘C.’—Showing the number of acres of swamp lands in Manitoba transferred to that province up to June 30, 1902.

‘D.’—Showing the number of patents forwarded to the several registrars of the North-west Territories, and the number of notifications sent to patentees during year ended June 30, 1902.

‘E.’—Showing the number of entries cancelled during year ended June 30, 1902, also the year in which such entries were made.

‘F.’—Showing the number of deeds of transfer recorded at head office during year ended June 30, 1902.

‘G.’—Statement of entries affecting Dominion lands which were made at head office during year ended June 30, 1902.

I have the honour to be, sir,

Your obedient servant,

N. O. COTE,
Acting Chief Clerk.

SESSIONAL PAPER No. 25

A.—STATEMENT showing the Number of Homestead Entries made during the Fiscal Year ended June 30, 1902, compared with the corresponding period of the previous Year.

Agency.	Fiscal Year ended June 30, 1901.	Fiscal Year ended June 30, 1902.	Increase.	Decrease.	Net Increase.
Alameda.....	464	1,973	1,509		
Battleford.....	10	166	159		
Brandon .. *	408	651	242		
Calgary.....	892	1,475	673		
Dauphin ..	454	380		74	
Edmonton.....	1,634	2,141	507		
Kamloops.....	60	88	28		
Lethbridge.....	523	890	367		
Minnedosa.....	374	437	63		
New Westminster.....	25	29	4		
Prince Albert.....	513	1,008	495		
Regina.....	911	2,392	1,481		
Red Deer.....	856	1,148	292		
Winnipeg.....	691	792	101		
Yorkton.....	442	1,063	621		
	8,167	14,633	6,540	74	6,466

Representing in 1901..... 25,988 souls.

" 1902..... 43,545 "

N. O. COTE,
Acting Chief Clerk.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 28, 1902.

2-3 EDWARD VII., A. 1903

B.—ABSTRACT of Letters Patent covering Dominion Lands situate in Manitoba, the North-west Territories, British Columbia, and the Yukon Territory, issued from the Department of the Interior, during the Fiscal Year ended June 30, 1902, as compared with the Fiscal Year ended June 30, 1901.

No.	Nature of Grant.	From July 1, 1901, to June 30, 1902.		From July 1, 1900, to June 30, 1901.	
		Patents.	Acres.	Patents.	Acres.
1	Assignment of mortgages			2	
2	British Columbia homesteads.	218	32,225	236	35,957
3	British Columbia sales.....	36	1,601	18	1,074
4	Coal lands sales.....	7	1,213	8	1,335
5	Commutation grants.....	11	470	14	1,670
6	Foreshore rights.....				
7	Free wood lot.....			1	20
8	Fruit tree culture.....	1	160		
9	Half-breed allotments.....			5	960
10	Homesteads.....	4,349	687,896	1,886	299,946
11	Hudson's Bay Co.....	8	30,220		
12	Leases.....			3	60
13	License of occupation.....	7		11	
14	Manitoba Act grants.....	7	398	8	492
15	Military homesteads.....	20	6,185	12	3,824
16	Mineral rights.....	1	160		
17	Mining lands sales.....	2	27	2	179
18	North-west half-breed grants.....	1,342	285,110	634	136,484
19	Parish sales.....	26	3,291	16	1,639
	Railways:—				
20	Calgary and Edmonton Railway Co.....	616	961,684	27	5,996
21	Canadian Northern Railway Co.....	28	4,899		
22	Canadian Pacific Railway grants.....	708	1,734,878	1,757	5,751,546
23	Canadian Pacific Railway nominees.....	144	85,594	569	122,815
24	Canadian Pacific Railway road-bed and station grounds.....	32	444	6	265
25	Great North-west Central Railway Co.....			1	320
26	Manitoba North-western Railway Co.....	121	99,649	209	46,442
27	Manitoba South-western Colonization Railway Co.....	166	75,220	165	34,570
28	North-western Coal and Navigation Co., now Alberta Railway and Coal Co.....	79	596,357	54	192,277
29	Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Co.....	23	4,411	72	101,583
30	Sales.....	478	72,490	346	76,050
31	School lands sales.....	70	7,791	41	4,010
32	Special grants.....	115	17,622	94	26,777
33	University of Manitoba.....				
34	Vancouver Island grants.....	1	160		
35	Yukon Territory sales.....	130	1,549	148	594
36	Yukon Territory specials.....	22		116	
	Totals.....	8,768	4,711,104	6,461	6,846,857

N. O. COTÉ

Acting Chief Clerk.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 28, 1902.

SESSIONAL PAPER No. 25

C.—STATEMENT showing the number of acres of swamp lands in Manitoba transferred by Order in Council to the Province of Manitoba up to June 30, 1902.

Date of Order in Council.	Acres.
April 21, 1884.....	104,740
April 16, 1888.....	52,600
June 7, 1888.....	60,355
August 25, 1891.....	105,635
December 7, 1891.....	36,479
April 22, 1893.....	69,680
October 21, 1893.....	13,040
" 4, 1895.....	5,602
" 31, 1896.....	53,520
" 31, 1896.....	6,960
November 10, 1896.....	137,016
December 1, 1896.....	117,250
June 18, 1897.....	151,250
June 27, 1898.....	3,120
December 1, 1899.....	148,811
February 17, 1899.....	48,470
August 18, 1899.....	
May 26, 1900.....	
April 26, 1902.....	20,744
Total.....	1,181,007

N. O. COTÉ,
Acting Chief Clerk.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 28, 1902.

D.—STATEMENT showing the number of patents forwarded to the several Registrars of the Land Registration Districts of the North-west Territories, and the number of notifications mailed to patentees during the year ended June 30, 1902.

Registration Districts.	Number of Patents sent to Registrars.	Number of Notifications mailed to Patentees
Assiniboia.....	3,377	3,300
East Saskatchewan.....	554	599
West Saskatchewan.....	48	30
North Alberta.....	2,143	1,645
South Alberta.....	1,532	970
Yukon.....	165	206
Totals.....	7,819	6,750

N. O. COTÉ,
Acting Chief Clerk.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 28, 1902.

2-3 EDWARD VII., A. 1903

E.—STATEMENT showing the number of Entries cancelled during the year ended June 30, 1902, also the year in which such entries were made.

Year.	Homesteads.	Pre-emptions.	Time sales.	Pre-emption sales.	Sales.
1878.		1			
1879.	1	3	1		
1880.	2		3		1
1881.	1	1	1		
1882.	7	24			
1883.	30	58	2		
1884.	19	44			
1885.	11	16		1	
1886.	20	17		1	
1887.	6	11		1	
1888.	21	13		1	
1889.	56	54		2	
1890.	37		2	1	
1891.	57		1		1
1892.	38		1	1	1
1893.	49		2		2
1894.	62			1	
1895.	37		2	1	
1896.	26				
1897.	23		1		
1898.	115		5		1
1899.	448		3		
1900.	1,106				3
1901.	960		2	1	
1902.	164		1		
	3,296	242	28	11	9

N. O. COTÉ,
Acting Chief Clerk.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 28, 1902.

F.—STATEMENT showing the number of Deeds of Transfer recorded at head office during the year ended June 30, 1902 :—

Number of deeds registered..... 1,717
Fees received in connection therewith..... \$3,434

N. O. COTÉ,
Acting Chief Clerk.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 28, 1902.

SESSIONAL PAPER No. 25

G.—STATEMENT of Entries affecting Dominion Lands which were made at head office during the fiscal year ended June 30, 1902.

Name of Grant.	Number.	Acres.
Special grants	123	16,854 00
Alberta Railway & Coal Company	78	596,311 91
Canadian Northern Railway Company	25	5,069 02
Canadian Pacific Railway Company	851	1,809,942 92
Manitoba and North Western Railway Company	112	123,918 95
Manitoba South-western Colonization Railway Company	163	75,160 02
Calgary & Edmonton Railway Company	617	960,161 66
Qu'Appelle, Long Lake & Saskatchewan Railroad and Steamboat Company	20	4,399 04
Railway right of way	26	234 00
Totals	2,015	3,592,041 52

N. O. COTÉ,
Acting Chief Clerk.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, July 28, 1902.

2-3 EDWARD VII., A. 1903

No. 26.

REPORT OF THE ACCOUNTANT.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, August 23, 1902.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit statements of revenue collected from various sources during the fiscal year 1901-1902, as follows :—

A. Dominion lands, including Yukon Territory.. . . .	\$1,432,679 25
B. Ordnance lands.....	16,967 36
C. School lands.....	193,410 75
D. Registration fees.. . . .	50,854 99
E. Fines and forfeitures, N.W.T.....	1,955 61
F. Casual revenue.....	3,900 62
G. Seed grain repayments.....	20,293 06

A statement of the revenue on account of Dominion lands (marked 'H') shows the receipts monthly, classified under sub-heads.

Statement marked 'I' shows a comparison between the receipts on account of Dominion lands for 1901-1902 as compared with the revenue of the previous fiscal year.

I am, sir, your obedient servant,

CHAS. H. BEDDOE.
Accountant.

SESSIONAL PAPER No. 25

A.—DOMINION Lands Revenue (Cash and Scrip), for the fiscal year ended June 30, 1902.

	Cash.	Scrip.	Total.
	\$ cts.	\$ cts.	\$ cts.
<i>Yukon Territory.</i>			
Sales of lands	14,064 30	4,583 51	18,647 81
Rentals of lands	44,720 94		44,720 94
Survey fees	750 00		750 00
Liquor permit fees	20 00		20 00
Map sales, office fees, &c.	310 50		310 50
Forfeitures fees	4,345 50		4,345 50
Timber dues	42,452 29		42,452 29
Hay lands	1,978 50		1,978 50
Grazing lands	91 95		91 95
Mining fees	256,256 10		256,256 10
Royalty on gold	8242,281 49		
Export tax	89,250 55		
	331,532 04		331,532 04
Hydraulic leases	19,582 40		19,582 40
Dredging leases	4,355 00		4,355 00
Free miners' certificates	118,312 02		118,312 02
	838,771 54	4,583 51	843,355 05
Net loss by assay	2,550 71		2,550 71
	836,220 83	4,583 51	840,804 34
<i>Dominion Lands Agencies.</i>			
Alameda	20,616 81	8,108 00	28,725 41
Battleford	1,657 00		1,657 00
Brandon	9,253 35	11,324 88	20,578 23
Calgary	17,597 86	28,338 05	45,935 91
Dauphin	5,142 20	1,061 44	6,203 64
Edmonton	23,408 35	4,817 11	28,225 46
Kamloops	3,108 48	27,340 38	30,448 86
Lethbridge	43,961 19	29,140 68	73,101 87
Minnedosa	5,076 50	3,308 89	8,385 39
New Westminster	1,683 74	160 00	1,843 74
Prince Albert	10,670 46	2,875 78	13,546 24
Red Deer	13,124 21	3,929 73	17,053 94
Regina	25,662 66	18,127 70	43,790 36
Winnipeg	14,265 44	20,518 61	34,784 05
Yorkton	11,240 97	6,131 77	17,372 74
<i>Crown Timber Agencies.</i>			
Alameda	228 75		228 75
Battleford	286 52		286 52
Brandon	424 94		424 94
Calgary	10,148 41		10,148 41
Dauphin	5,699 79		5,699 79
Edmonton	6,836 07		6,836 07
Lethbridge	122 95		122 95
Minnedosa	1,739 09		1,739 09
New Westminster	57,919 27		57,919 27
Prince Albert	12,289 31		12,289 31
Red Deer	457 83		457 83
Regina	208 83		208 83
Winnipeg	68,463 44		68,463 44
Yorkton	513 41		513 41
<i>Miscellaneous.</i>			
Rocky Mountains Park of Canada	2,601 84	160 29	2,861 13
Irrigation fees	224 00		224 00
Map sales, office fees, &c.	4,939 61		4,939 61
Fees re applications for patents ..	320 00		320 00
Survey fees	21,331 37		21,331 37
Patent fees	220 00		220 00
Rentals	74 00		74 00
Examination fees, D.L.S.	370 00		370 00
Over-deposits	69 55		69 55

2-3 EDWARD VII., A. 1903

A.—DOMINION Lands Revenue (Cash and Scrip)—*Concluded.*

	Cash.	Scrip.	Total.
	\$ cts.	\$ cts.	\$ cts.
<i>Miscellaneous—Concluded.</i>			
Refunds of refunds.....	615 94		615 94
Bonus on timber berth.....	55 00		55 00
Mining fees.....	678 00		678 00
Hay lands.....	3,452 06		3,452 06
Dredging leases.....	3,114 10		3,114 10
Grazing lands.....	7,200 51	8,409 27	15,609 78
Coal lands.....	925 32		925 32
Rent of water power.....	23 60		23 60
	1,254,333 56	178,345 69	1,432,679 25
Refunds.....	26,356 81	724 62	27,081 43
	1,227,976 75	177,621 07	1,405,597 82

CHAS. H. BEDDOE,
Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, August 23, 1902.

B.—STATEMENT of Ordnance Lands Revenue for the fiscal year ended June 30, 1902.

Month.	Amount.	Month.	Amount.
1901.	\$ cts.	1902.	\$ cts.
July.....	1,305 61	January.....	8,484 80
August.....	363 07	February.....	40 80
September.....	311 19	March.....	824 82
October.....	1,599 15	April.....	352 90
November.....	473 75	May.....	807 49
December.....	88 03	June.....	2,315 75
			16,967 36

CHAS. H. BEDDOE,
Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, August 23, 1902.

SESSIONAL PAPER No. 25

C.—STATEMENT of Receipts on account of School Lands for the Fiscal Year ended June 30, 1902.

Month.	Manitoba School Lands.	Assiniboia School Lands.	Alberta School Lands.	Saskatchewan School Lands.	Total.
1901.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
July.....	6,684 74	206 57	344 44	21 70	
August.....	898 75	86 55	216 20	2 90	
September.....	2,613 36	20 35	92 55		
October.....	2,977 09	73 15	112 93		
November.....	41,683 35	2,396 08	117 95		
December.....	48,437 26	217 24	174 60	12 80	
1902.					
January.....	33,647 03	1,461 46	290 45	3 50	
February.....	14,687 09	197 36	173 93		
March.....	10,248 13	594 75	228 74		
April.....	9,339 73	948 71	552 08	40 60	
May.....	4,154 46	90 60	593 72	19 60	
June.....	6,191 01	1,719 50	827 24	1 50	
	181,562 00	8,021 32	3,724 83	102 60	193,410 75

CHAS. H. BEDDOE,
Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, August 23, 1902.

D.—STATEMENT of Registration Fees for the Fiscal Year ended June 30, 1902.

District.	Registrar.	Total Registration Fees.
		\$ cts.
Assiniboia.....	F. F. Forbes.....	18,893 55
North Alberta.....	George Roy.....	11,701 70
South Alberta.....	W. R. Winter.....	8,190 78
East Saskatchewan.....	S. Brewster.....	3,081 73
West Saskatchewan.....	R. F. Chisholm.....	71 18
Yukon Territory.....	J. E. Girouard.....	8,916 65
		50,854 99

CHAS. H. BEDDOE,
Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, August 23, 1902.

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E.—STATEMENT of Fines and Forfeitures, North-west Territories, collected under Dominion Statutes (except 'The Indian Act' and 'The Fisheries Act') for the Fiscal Year ended June 30, 1902.

Date of Bank Receipt.	From whom Received.	Amount.	Total.
1901.		8 cts.	8 cts.
Oct. 12.....	The Attorney General.....	213 24	
1902.			
Feb. 13.....	North-west Government.....	585 00	
April 8.....	".....	693 45	
July 8.....	".....	463 92	
			1,955 61

CHAS. H. BEDDOE,
Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, August 23, 1902.

SESSIONAL PAPER No. 25

F.—STATEMENT of Casual Revenue for the Year ended June 30, 1902.

Name.	Particulars.	Amount.
		8 cts
Ontario Government, Toronto.....	Proceeds of sale of one standard measure	8 00
Immigration Commissioner, Winnipeg	Cheque #717, not used	8 00
J. W. Thompson.....	Refund, account contingencies	4 20
L. T. Burwash.....	" " travelling expenses.....	137 20
D. A. McRae.....	" "	208 70
Wm. Fuerste.....	" "	217 74
W. R. Hamilton.....	" "	137 20
A. D. L., Kamloops	Proceeds of sale, old office safe	275 00
Chas. Sylvester.....	Refund, account travelling expenses.....	4 15
E. Haanel.....	" "	433 12
A. D. L., Kamloops.....	Proceeds of sale of small safe	16 00
Immigration Commissioner, Winnipeg	Refunds, account railway fares.....	7 60
A. D. L., Dauphin	Proceeds of sale of coal (not required).....	17 00
" Alameda	Refund, account Moose Mountain Fire Guard.....	246 75
Paul Bredt	" of cheque #253, not used	50 00
Dept. of Public Works	" one month's rent, Immigration Hall, Edmonton	50 00
Immigration Commissioner, Winnipeg	" account railway fares	3 00
W. L. Griffith	" immigration expenses.....	14 07
Dept. of Public Works	" account rent and storage of exhibits, &c.	62 50
Comptroller, Yukon.....	Proceeds of sale of cabin, Dominion Creek	135 00
Tobias Unruh	Refund, June, 1901, salary cheque not used	75 00
H. McKinnon	" account travelling expenses	292 69
Postmaster, Dawson	" cost of keys.....	3 00
Immigration Commissioner, Winnipeg	" account of team for two days.....	6 00
" "	" by Public Works Dept.....	30 05
" "	"	19 50
A. D. L., Regina.....	Proceeds of sale of old safe	175 00
Dr. J. Patterson.....	Refund account April, 1900, salary.....	77 10
R. C. Miller.....	" " salary and allowance.....	204 83
" Yukon Sun	" overpayment, account advertising.....	17 50
W. H. Montgomery.....	" account travelling expenses.....	1 35
Wm. Ogilvie.....	" "	93 52
A. D. L., Kamloops.....	Proceeds of sale of old stove	6 00
W. F. King	Refund account travelling expenses.....	28 57
Jas. McArthur.....	Proceeds of sale of an old horse	70 00
A. Saint-Cyr.....	" " survey outfit	192 30
Comptroller, Yukon.....	" " set of scales.....	60 00
Immigration Commissioner, Winnipeg	Refund, account provisions.....	7 76
" "	Proceeds of sale of two boilers	32 50
" "	Refund, account provisions and grain.....	358 99
A. D. L., Yorkton.....	Proceeds of sale of old safe	75 00
H. Douglas	" " hay	20 00
W. C. de Balinhard.....	Refund, account contingencies.....	18 68
		3,900 62
Repayments*	Account relief mortgages of 1876.....	1,426 35
" "	" seed grain advances, 1893	123 15
" "	" " " 1894	4,267 24
" "	" " " 1896	1,732 18
" "	" " " 1898	206 45
" "	" " " 1900	812 14
" "	" " " 1901	4,262 75
		16,790 88

* NOTE.—The above seven items appear on statement (G) of repayments of seed grain advances.

CHAS. H. BEDDOE,
Accountant

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, August 23, 1902.

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G. STATEMENT showing Seed Grain and Relief Mortgage Repayments for the fiscal year ended June 30, 1902.

	Seed Grain Advances.	Seed Grain Advances.	Seed Grain Advances.	Seed Grain Advances.	Seed Grain Advances.	Seed Grain Advances.	Seed Grain to Settlers' Account.	Territorial Account.	Relief Mortgages.	Total.
	1901.	1900.	1898.	1896.	1895.	1894.	1893.	1886-87-88.	1876.	
Refunds	\$ cts. 4,262 75 3 85	\$ cts. 812 14 ...	\$ cts. 266 45	\$ cts. 1,732 18 1 50	\$ cts. 4,174 52 32 03	\$ cts. 4,346 35 79 71	\$ cts. 123 15	\$ cts. 1,567 88 4 94	\$ cts. 1,543 31	\$ cts. 20,293 06 122 03
	4,262 75	812 14	266 45	1,732 18	4,174 52	4,367 24	123 15	1,562 94	1,543 31	20,171 03

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, August 23, 1902.

CHAS. H. REDDIE,
Accountant.

SESSIONAL PAPER No. 25

H.—STATEMENT of Gross Receipts on account of Dominion Lands for the Fiscal Year ended June 30, 1902.

Month.	Homestead Fees.	Inspection and patent Fees.	Rentals, &c.	Improvements.	(General) Sales of Lands.	Timber Dues.	Rents from Grazing Lands.	Royalty, Hay, Mining, &c.	Rocky Mountains Park	Surveyors' Examination Fees.	Map Sales, Office Fees, &c.	Survey Fees.	Fees re applications for Patents.	Total.
1901.														
July	9,115 00	10 00	2,756 00	514 32	2,206 08	17,577 33	347 12	104,376 31	383 20	.....	388 68	259 92	25 00	137,468 96
August	7,550 00	.....	1,743 37	327 75	2,082 70	15,813 81	386 12	100,319 27	490 50	.....	387 25	350 37	150 00	129,651 14
September ..	5,645 00	20 00	963 17	574 25	12,316 24	27,986 57	339 37	107,913 19	273 33	.....	437 75	1,534 06	.....	138,025 43
October	7,710 00	40 00	203 40	739 75	4,711 65	14,714 13	339 45	72,878 19	391 93	.....	95 50	169 87	30 00	102,083 87
November	7,565 00	25 00	2,521 98	312 86	3,014 63	7,044 25	332 11	46,345 99	119 75	.....	312 45	615 54	5 00	62,343 96
December	8,175 00	30 00	7,818 37	585 97	3,103 38	17,581 27	402 83	25,335 48	141 75	.....	614 20	1,257 47	25 00	65,100 72
1902.														
January	7,435 00	20 00	2,007 70	650 90	4,516 30	13,243 00	2,101 72	24,679 54	127 17	75 00	335 55	398 89	30 00	56,842 60
February	8,905 00	50 00	2,314 82	777 70	9,327 02	10,380 63	553 17	24,757 82	371 34	180 00	581 25	351 34	15 00	58,450 42
March	11,735 00	30 00	8,303 01	855 32	6,292 91	13,621 75	1,027 03	37,438 66	64 25	30 00	404 50	6,074 56	15 00	80,533 05
April	20,565 00	40 00	8,166 61	1,474 09	3,869 64	29,917 16	416 19	43,092 22	119 50	30 00	550 65	8,604 66	20 00	113,845 72
May	21,990 00	40 00	10,673 26	689 45	6,204 91	19,535 95	599 79	38,575 83	407 00	45 00	1,531 02	10 00	100,563 99	185,424 41
June	27,585 00	40 00	910 24	820 10	9,365 85	23,377 05	586 40	120,007 17	133 46	20 00	1,171 00	1,003 67	5 00	185,424 41
Deduct assay charges	144,425 00	325 00	49,923 93	8,481 46	66,350 21	207,730 90	7,202 46	740,429 14	2,691 84	370 00	5,792 96	22,081 37	330 00	1,256,884 27
.....	.....	.....	.....	.....	.....	.....	.....	2,550 71	.....	.....	.....	.....	.....	2,550 71
.....	144,425 00	325 00	49,923 93	8,481 46	66,350 21	207,730 90	7,202 46	737,878 43	2,691 84	370 00	5,792 96	22,081 37	330 00	1,254,333 56
.....	.....	.....	.....	.....	169,767 13	.....	8,409 27	.....	169 29	.....	.....	.....	.....	178,545 69
.....	144,425 00	325 00	49,923 93	8,481 46	226,717 34	207,730 90	15,701 73	737,878 43	2,801 13	370 00	5,792 96	22,081 37	330 00	1,482,679 25

CHAS. H. BEDDOE,
Accountant.DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, August 23, 1902.

2-3 EDWARD VII., A. 1903

DOMINION LANDS REVENUE.

I.—STATEMENT of Gross Receipts (Cash and Scrip) on account of Dominion Lands Revenue for the fiscal year 1901-1902, compared with the previous fiscal year.

Particulars.	Fiscal Year 1901-1902.	Fiscal Year 1900-1901.	Increase.	Decrease.	Net Decrease.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Dominion Lands Agencies.....	371,652 84	425,704 53	.....	54,051 69	.....
Crown Timber Agencies.....	165,338 61	134,505 52	30,833 09	.....	.....
Rocky Mountains Park of Canada..	2,861 13	4,047 31	.....	1,186 18	.....
Hay, Mining, Coal, Stone and Gra- zing Lands.....	23,802 86	34,090 32	.....	10,287 46	.....
Miscellaneous.....	28,219 47	36,189 40	.....	7,969 93	.....
	591,874 91	634,537 08	30,833 09	73,495 26	.....
Yukon Territory.....	840,804 34	1,239,622 01	.....	398,817 67	.....
	1,432,679 25	1,874,159 09	30,833 09	472,312 93	441,479 84

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, August 23, 1902.

CHAS. H. BEDDOE,
Accountant.

No. 27.

REPORT OF THE SCHOOL LANDS BRANCH.

DEPARTMENT OF THE INTERIOR,
SCHOOL LANDS BRANCH,

OTTAWA, August 21, 1902.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the following report of the transactions of the School Lands Branch of the Department for the fiscal year ending June 30, 1902.

No general auction sales of school lands were held either in Manitoba or the North-west Territories during the past fiscal year, but by your instructions the four quarters of section 11, township 4, range 22, west of the 1st meridian, were offered for sale at public auction at Deloraine on April 4 last, subject to an upset price of \$5 per acre, and were disposed of as follows :—

	Per Acre.
South-east quarter....	\$ 7 25
South-west quarter....	7 75
North-east quarter....	5 50
North-west quarter....	5 50

In addition to this the land required for the right of way of the Canadian Northern Railway through sections 11 and 29, township 15, and section 29, township 16, in range 12, west of the 1st meridian, comprising in all 21.36 acres, was sold to the company under the provisions of the Railway Act at a valuation approved by Order in Council, that is to say, \$5 per acre, except for the south-west quarter of section 29, township 15, range 12, west of the 1st meridian, which was valued at \$6 per acre.

The total area of Manitoba school lands disposed of to July 1, 1902, is 280,625.73 acres for the principal sum of \$2,241,720.28. From this, however, must be deducted 8,083.94 acres for cancellations and correction surveys, representing \$54,039.19, leaving a net area of 272,541.79 acres sold for \$2,187,681.09 principal money. Of this amount, \$803,881.31 principal was collected to July 1, 1902, as well as \$180,158.28 interest, making the total sum collected to that date on account of sales of Manitoba school lands \$984,039.59. This leaves a balance of principal outstanding of \$1,383,799.78. The bulk of this sum, however, is not yet due, being derived from the auction sales of June, 1900, the purchase money of which is payable in ten equal annual instalments.

Application having been made by the government of Manitoba for the payment to the province of all moneys collected by the Dominion government on account of Manitoba school lands, exclusive of the principal moneys of sales, and the law officers of the Crown having advised that the province is entitled to be paid all the revenue collected from such sources, exclusive of the principal moneys received on account of such sales, an Order in Council was passed on June 11 last authorizing the payment to the province of the sum of \$175,013.74, being the interest collected on account of sales of

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Manitoba school lands to April 1, 1902, and of the further sum of \$49,101.02, being the amount received by the department to the same date on account of these lands from all other sources except the principal moneys of sales, making in all the sum of \$224,114.76, for which amount a Finance Department cheque No. 9166 was issued and was forwarded to the Provincial Treasurer on June 30 last.

The same Order in Council further provides that payment shall be made annually to the province of all revenue from the same sources received since April 1, 1902.

The revenue from Manitoba school lands for the past fiscal year was as follows :—

Sales, \$176,611.99, of which \$107,834.10 was principal and \$68,777.89 interest.

Cultivation permits....	\$ 559 41
Grazing leases....	903 25
Timber....	477 08
Hay permits....	1,716 70

making a net total, after deducting refunds, of \$180,268.43.

The revenue from the Territories for the same period was as follows :—

Sales, \$6,387.05, of which \$3,748.12 was principal and \$2,638.93 interest.

Cultivation permits....	\$ 57 25
Grazing leases....	3,877 15
Timber....	537 50
Hay permits....	848 30
Coal....	30 00

or in all, a net total, after deducting refunds, of \$11,737.25, making the total net revenue for the year from Manitoba and the Territories, \$192,005.68.

By your instructions, all the business in connection with the issue of grazing and hay leases of school lands in Manitoba and the North-west Territories, as well as the permits for hay, timber and coal, which had hitherto been dealt with by the Timber and Mines Branch of the Department, was on July 1, 1901, placed under the control of this branch. The agents of Dominion lands in Manitoba and the North-west Territories were prior to that date advised of the proposed change and were instructed that from that date all revenue collected by them on account of school lands must be reported weekly to the School Lands Branch of this Department on a special form furnished them for that purpose, accompanied by the coupons of all receipts and permits issued on account of school lands, and that a monthly summary of school lands revenue must also be furnished to this branch.

They were also supplied with special forms of receipts for school lands numbered consecutively, with additional coupons for the Auditor General. Special forms of hay and timber permits for school lands were also furnished.

The entire business in connection with school lands is therefore now under the control of this branch. This change has of course added very considerably to the work of the office, involving as it does the checking and posting of the agents' returns; the preparation and issuing of grazing leases; the opening and posting of new accounts and the additional correspondence in connection therewith.

There has been a strong demand within the past fiscal year for leases of school lands for grazing purposes and 155 new leases have been issued, 35 of which were for lands in Manitoba and 120 for lands in the North-west Territories.

In view of the applications made from time to time to lease school lands for coal mining purposes, it was decided to submit to the Governor in Council for approval

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regulations for the issue of such leases, and as you are aware, an Order in Council was passed on June 20 last approving and confirming such regulations. This was, however, amended by Order in Council of the 26th of the same month by providing that the term of the lease issued for coal mining purposes of school lands should be twenty years instead of ten years. Already a number of applications have been received for leases of school lands for this purpose.

Appended herewith is a revenue and expenditure statement showing the position of the School Lands Fund of Manitoba, and of each of the provisional districts of the North-west Territories on July 1, 1902.

I have the honour to be, sir,
Your obedient servant,

FRANK S. CHECKLEY,
Clerk in Charge.

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MANITOBA School Lands.

Particulars.	Dr.	Cr.
	§ cts.	§ cts.
Balance, July 1, 1901.....		757,328 09
Sales, 12 months ended June 30, 1902.....		176,611 99
Timber, hay and grazing, 12 months ended June 30, 1902.....		3,097 03
Rental for cultivation purposes, 12 months ended June 30, 1902.....		559 41
Interest, 12 months ended June 30, 1902.....		25,086 24
Cost of management at Ottawa, 12 months ended June 30, 1902.....	875 00	
Expenses, being examination, valuation and auctioneers' fees, printing and advertising, &c., 12 months ended June 30, 1902.....	4,188 41	
Revenue collected on account of timber, hay, grazing, cultivation and interest on sales, from the commencement to April 1, 1902, paid to the Manitoba Government under Order of Council of June 11, 1902.....	224,114 76	
Interest paid to Manitoba Government to June 30, 1902.....	25,086 24	
Balance, June 30, 1902.....	708,418 35	
	962,682 76	962,682 76

ASSINIBOIA School Lands.

Particulars.	Dr.	Cr.
	§ cts.	§ cts.
Balance, July 1, 1901.....		19,109 64
Sales, 12 months ended June 30, 1902.....		6,387 05
Timber, hay and grazing, 12 months ended June 30, 1902.....		1,556 17
Rental for cultivation purposes, 12 months ended June 30, 1902.....		22 50
Interest, 12 months ended June 30, 1902.....		650 44
Cost of management at Ottawa, 12 months ended June 30, 1902.....	437 50	
Expenses of advertising, &c., 12 months ended June 30, 1902.....	60 22	
Interest paid to Government of the North-west Territories to June 30, 1902.....	651 44	
Balance, June 30, 1902.....	26,577 64	
	27,725 80	27,725 80

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ALBERTA School Lands.

Particulars.	Dr.	Cr.
	\$ cts.	\$ cts.
Balance, July 1, 1901.....		50,336 86
Timber, hay and grazing, 12 months ended June 30, 1902.....		3,634 18
Rental for cultivation purposes, 12 months ended June 30, 1902.....		34 75
Interest, 12 months ended June 30, 1902.....		1,140 32
Cost of management at Ottawa, 12 months ended June 30, 1902.....	437 50	
Expenses for advertising, &c., 12 months ended June 30, 1902.....	70 15	
Interest paid Government of the North-west Territories to June 30, 1902.....	1,140 32	
Balance, June 30, 1902.....	53,498 14	
	55,146 11	55,146 11

SASKATCHEWAN School Lands.

Particulars.	Dr.	Cr.
	\$ cts.	\$ cts.
Balance, July 1, 1901.....		1,075 02
Timber, hay and grazing, 12 months ended June 30, 1902.....		102 60
Interest, 12 months ended June 30, 1902.....		33 07
Expenses, for advertising, &c., 12 months, ended June 30, 1902.....	20 00	
Interest paid Government of the North-west Territories, 12 months ended June, 30, 1902.....	53 00	
Balance, June 30, 1902.....	1,157 62	
	1,210 69	1,210 69

DEPARTMENT OF THE INTERIOR,
SCHOOL LANDS BRANCH,
OTTAWA, 21st August, 1902.

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No. 28.

REPORT OF THE REGISTRAR.

DEPARTMENT OF THE INTERIOR,
CORRESPONDENCE REGISTRATION BRANCH,
OTTAWA, July 11, 1902.

JAMES A. SMART, Esq.,
Deputy of the Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit two statements showing the work of this branch for the fiscal year ending June 30 last.

The statement 'A' is made to show the work during each month and you will notice that, so far as the correspondence is concerned, the latter half year is the heaviest yet experienced by the department.

The number of letters sent out by this branch shows an increase over last year, notwithstanding that letters sent by the Immigration Branch, which were up to last year put through our books are now dealt with by that branch.

The amalgamation of the files of the office of Commissioner of Dominion Lands, with those of the department, is progressing slowly (only 8,300 being so dealt with during the year), owing principally to the lands being entered for since transfer of that office to headquarters, and the general correspondence conducted by this branch now including that of the Commissioner of Dominion Lands.

I am, sir, your obedient servant,

K. J. HENRY,
Registrar.

SESSIONAL PAPER No. 25

STATEMENT A.

STATEMENT of work done in the Correspondence Registration Branch during the year ended June 30, 1902.

From July 1, 1901, to June 30, 1902.	Letters Received.	Letters Sent.	Registered Letters Received.	Registered Letters Sent.	Telegrams Sent.	Totals.
July	5,625	8,532	439	1,344	125	16,065
August	5,130	7,991	390	1,075	80	14,666
September	4,341	5,992	386	848	124	11,691
October	4,450	7,108	374	1,023	75	13,030
November	5,030	6,380	346	1,036	39	12,831
December	5,557	6,943	515	1,344	27	14,387
Total first half year	30,133	42,946	2,451	6,670	470	82,670
January	6,012	8,166	460	1,113	85	15,836
February	5,580	7,688	493	1,332	51	15,144
March	6,608	8,184	483	1,338	72	16,665
April	6,934	8,618	496	1,426	127	17,598
May	5,810	9,753	438	1,547	114	17,662
June	6,645	9,499	472	1,239	116	17,965
Total second half year	37,589	51,908	2,839	7,995	559	100,890
Total first half year	30,133	42,946	2,451	6,670	470	82,670
Total second half year	37,589	51,908	2,839	7,995	559	100,890
Total for year ended June 30, '02.	67,722	94,854	5,290	14,665	1,029	183,560

The number of pages compared during the year was 6,573.

The number of pages of Letter Book indexed was 57,750.

Moneys received.

	July 1, 1901, to June 30, 1902.
	\$ cts.
Cash	9,660 97
Cheques	193,180 87
Script	111,584 36
Script orders	13,447 36
Money orders	55,126 31
Total	3-2,999 87

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No. 29

REPORT OF THE GEOGRAPHER.

DEPARTMENT OF THE INTERIOR,

OFFICE OF THE GEOGRAPHER,

OTTAWA, September 24, 1902.

JAMES A. SMART, Esq.,

Deputy Minister of the Interior,
Ottawa.

SIR.—I have the honour to report as follows on the work of my office during the past year.

The assignment of work was much the same as in the previous year.

Mr. J. E. Chalifour has been engaged on the large map of the Dominion, making additions necessitated by the new surveys, correcting proofs, &c. He has also compiled a map of Yukon Territory, and has commenced the compilation of the British Columbia 'Railway Belt' map.

Mr. W. J. Graham has compiled the Banff and Lake Louise sheets of the Rocky Mountain map and part of the map of the Rocky Mountains between the Canadian Pacific and the North Saskatchewan.

Mr. H. A. Baine has compiled Sheet 1 S.W., and part of Sheet 1 S.E., of the Western Ontario map. He has also drawn the hill-shading for the large map of Canada.

Mr. A. A. Linnell has completed the three-sheet map of Manitoba and the Northwest Territories, and has kept the original map up to date by the addition of the results of the new surveys as soon as filed.

Mr. H. Taché has been employed on the compilation and reduction of plans for the Ontario and Rocky Mountain maps.

Mr. G. E. Dumouchel has made reductions for the Dominion and Ontario maps.

Mr. M. W. Sharon has traced MSS. plans in the Department of Railways and Canals and has made reductions for sundry maps.

Mr. H. W. Wilson was appointed January 7, and has calculated the areas of the townships, parishes, counties and principal lakes for the census report.

Mrs. D. E. Waine has been employed as stenographer and typewriter, has completed a card index of the geographical names included in the new map of Canada and names approved by the Geographic Board.

The need of a new and accurate map of Canada engraved on copper or steel to permit the publication of subsequent up to date editions, has long been felt, the Geological Survey map of 1866—the only map of this kind hitherto published—being completely out of date owing to the extensive surveys and explorations that have been made since its publication. In view of the above the compilation of a map of this kind was commenced as soon as possible after my appointment and has been steadily pressed to completion. The lack of an accurate topographical survey; the numerous sources from which information must be obtained; the difficulty, in many cases of obtaining access to the plans of old and almost forgotten surveys; the necessity of incorporating surveys that are being made concurrently with the compilation of the map which, frequently, alter the work almost as soon as completed; the necessity of referring all names to the Geographic Board and the great labour involved in reducing from the original plans—thus avoiding the errors that inevitably creep into the best

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maps—all tend to make the compilation of such a map a long and tedious operation. It is now in the press and will be ready for distribution in a few weeks. The publication has been delayed beyond the anticipated date but, as the delay has permitted the inclusion of the surveys of 1901, it has ensured to the betterment of the map. Of the 6,000 names included in this map, which have been referred to the Geographic Board, 427 were finally approved and the remainder, 5,573 were approved provisionally. As the former includes practically all the names that were considered debatable, this is equivalent to an approval of the whole. Preparing the lists of these names, with all known variant forms or different names applied to the same feature, and investigating their history, &c., has occupied a great deal of my time and consequently has tended to delay the progress of the work.

The map consists of eight sheets, each 25 inches by 26, in eight colours; is drawn on an oblique secant cylinder projection—with 110° W. long. as the central meridian—includes the whole of Canada, with the exception of some of the Arctic islands, Newfoundland and the northern states, and is on a scale of 35 miles to 1 inch and makes when mounted, a map, approximately, 9 feet by 5 feet. It is engraved on copper and printed on stone, the black and colours for the eight sheets, requiring sixty-eight stones. Being engraved on copper, subsequent editions or regional maps covering any portion of the whole, can be published from time to time, the results of new surveys being added as required. As examples of the expeditiousness and economy of copper-plate maps I may mention that the maps to be published in the *Economic Atlas* referred to below will be transferred from the plate of the large and small maps of the Dominion, thus producing excellent maps at a minimum of cost.

The *Economic Atlas* will include the following—

(1.) Map of Canada on a scale of 35 miles to 1 inch, showing the principal mineral occurrences, forests, agricultural and dairy resources, railways, &c.

(2.) Geological map of Canada—scale 100 miles to 1 inch.

(3.) Hypsometric map, on a scale of 100 miles to 1 inch, showing the elevation of the land surface.

(4.) Map showing telephone and telegraph lines and canals.

(5.) Maps showing isotherms for each month of the year.

(6.) Isobars for the seasons and for the year.

(7.) Limits of trees and shrubs.

Diagrams will also be added showing the population, density of population, increase of population, percentage in various census years of urban and rural population, industries, manufactures, exports, &c.

The value of these economic maps is obvious, but a few of the principal uses may be cited.

The large economic map will indicate in a general way the enormous, though largely undeveloped mineral, agricultural and forest resources of the country and will also show the great possibilities of development. The isothermal maps indicate in a general way the limits of cultivation, for instance, the isotherm of 60° for July, marks approximately the northern limit of practicable agriculture. On examining the map we find that it passes through Lake Mistassini in Quebec, north of York Factory in Ontario, through Great Slave lake, and the southern portion of Great Bear lake in the North-west Territories and north of Dawson in Yukon. Vegetables of all kinds and of excellent quality have been grown near Dawson in what was formerly supposed to be a country of eternal frost. C. C. Georgeson, special agent of United States Department of Agriculture, says in the *National Geographic Magazine* for March, 1902: 'At Dawson I have seen a magnificent display of native-grown vegetables comprising all the hardy kinds; and at the Chamber of Commerce rooms of that town are displayed fine samples of barley, oats, and wheat in many varieties, perfectly normal in all particulars, and grown there by a local experimenter. At Eagle I have seen all the foregoing crops, and in addition a luxuriant growth of sweet peas, poppies, mignonette, and a host of other flowers in full bloom. At Holy Cross Mission I ate new potatoes, cauli-

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flower, cabbage, carrots, beets, lettuce and radishes in the beginning of August, all produced in the mission gardens at Rampart, in latitude 65° , a station was established by the Department of Agriculture, in the summer of 1900. Winter rye, seeded there in August of that year, lived through the winter perfectly under a good covering of snow. Although the temperature fell to 70° below zero, it came out in the spring in perfect condition, and matured grain by the first of August, 1901. Barley seeded in May of the latter year was ripe by the middle of August.

Of the immense area of the country to the south of this isothermal line only the fringe has been occupied by settlement. Although, owing to the more or less rigorous climate, the extreme northern part is incapable of producing wheat, the fertile soil will permit the maturing of oats, barley, flax and other hardy crops, even in this portion.

It is desirable that a 'water power' map should be included, but unfortunately, the available information is of too fragmentary and unreliable a nature to justify the attempt. The heights of many of the falls in the principal rivers, and altitudes of railway stations and higher mountain peaks, however, have been added to the 'Economic Resources' map.

Owing to the absence of coal-bearing rocks in Ontario and Quebec, the importance of their magnificent water powers can hardly be over-estimated. The great Archaean nuclear tract, which forms such a large portion of these provinces and of the northern territories, is a great gathering-ground for innumerable streams, which flow from lake to lake, usually in a series of rapids and falls with intervening stretches of 'slack water'—the lakes forming natural reservoirs whose capacity can usually be much increased, if necessary, by damming their outlets. In addition to the manufacture of wood-pulp, operation of electric railways and machinery of all kinds and production of electric light, water power is of great value for the manufacture of calcium carbide, aluminium, &c., for hydraulic mining, operating hoists and locomotives in mines, &c.

North of the height-of-land, in Ontario and Quebec is one of the greatest spruce forests in the world, which will undoubtedly be, at a comparatively early date, one of the principal sources of supply for the paper mills of America. This timber must be converted into pulp near the place of origin, and can only be so converted by water power.

Last November I published my 'Altitudes in Canada'—the first comprehensive report on the known altitudes in the Dominion. Although it is more useful in this form for civil engineers, the information required by the average individual is not readily found. I have therefore compiled a 'Dictionary of Altitudes,' in which the names of localities are arranged alphabetically under the heads of the various provinces and territories in which they are situated. In addition to the elevations of the railway stations the more important features of the vicinity have been added under the same head, thus collecting in a condensed form all the known altitudes of the towns and cities.

It will be accompanied by a relief map, on a scale of 100 miles to 1 inch, showing by varying depths of colour the portions of country between sea level and an altitude of 100 feet; between 100 and 500, 500 and 1,000, 1,000 and 2,000, 2,000 and 5,000, 5,000 and 10,000 and above 10,000. This will be a distinct advance on the map accompanying my 'Altitudes in Canada,' which is on too small a scale, viz., 250 miles to 1 inch.

The difficulties encountered in compiling the new map of Canada emphasize the need of a good topographical survey of, at least, the well-settled portions of the Dominion. A few years ago I made a survey between two well determined points on Georgian bay and the east end of Lake Ontario, respectively, which showed that part of Central Ontario as shown on the best existing maps, was over two miles out in longitude and over a mile in error in latitude. Although our maps show streams, lakes, &c., even in extreme north, much of the information on which this is based is of the vaguest kind. Much of it is derived from the rough surveys of officers of the Hudson's Bay Company and travellers; or from accounts and sketches of Indians or other persons—

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not surveyors—who may have traversed the district. While most of this unsurveyed country lies to the north, still there are large areas, like southern Keewatin, of which little is known, and, while not susceptible to agriculture throughout the whole area, undoubtedly contain great forest and, probably, great mineral wealth.

The waste of time involved in copying the geographical material in the possession of other departments indicates the great economy of time and money that would be effected by the formation of a geographical branch—referred to in my report of last year—which would undertake, at least, the mapping of the various departments now under the Honourable the Minister of the Interior. It is not too much to say that the largely increased effectiveness and expedition of the work produced by such an organization would, in a short time, induce other departments to request that their map work be taken over also.

Below is a list of maps published, in press and in progress.

Dominion of Canada and Newfoundland—eight sheets, each 25 inches by 26 inches; extends from the Atlantic to the Pacific and from Baltimore and Salem (Oregon), on the south to Cumberland sound and Herschel island on the north. Scale, 35 miles to 1 inch.—*Published.*

Dominion of Canada and Newfoundland—one sheet, 16 inches by 36 inches. Scale, 100 miles to 1 inch.—*Published.*

Rocky Mountains, Banff sheet—showing country in the vicinity of Banff. Scale, 2 miles to 1 inch.—*Published.*

Rocky Mountains, Lake Louise sheet—showing country between Castle Mountain and Leanehoil. Scale, 2 miles to 1 inch.—*In press.*

Rocky Mountains, North Saskatchewan sheet—showing country between the Canadian Pacific Railway and the North Saskatchewan. Scale, 4 miles to 1 inch.—*In progress.*

Yukon—extends from Lynn canal on the south to Eagle on the north and from the Pacific to the Frances river. Scale, 12 miles to 1 inch.—*In progress.*

British Columbia Railway Belt—showing the 'Railway Belt' in British Columbia. Scale $\frac{1}{750000}$ or 7.9 miles to 1 inch.—*In progress.*

Manitoba and North-west Territories—includes Manitoba, Assiniboia, Saskatchewan, Alberta and south-western portion of Keewatin; 3 sheets, each 25 inches by 36 inches. Scale, $12\frac{1}{2}$ miles to 1 inch.—*In press.*

Manitoba—Scale, $12\frac{1}{2}$ miles to 1 inch.—*In press.*

Assiniboia—Scale, $12\frac{1}{2}$ miles to 1 inch.—*In press.*

Saskatchewan—Scale, $12\frac{1}{2}$ miles to 1 inch.—*In progress.*

Alberta—Scale, $12\frac{1}{2}$ miles to 1 inch.—*In progress.*

Sheet 1, S.W., Ontario—includes Essex, Kent and Lambton counties. Scale, 4 miles to 1 inch.—*In progress.*

Sheet 1, S.E., Ontario—includes Elgin, Middlesex, Oxford and portions of Huron, Perth and Norfolk counties.—*In progress.*

Economic Atlas—includes the following maps:—

(a.) Economic resources, mineral, forest, agricultural, dairy, &c., also principal telegraph lines and cables.

(b.) Geology.

(c.) Hypsometric map.

(d.) Canals and telegraph and telephone lines of eastern Canada.

Also temperature and other maps with diagrams showing increase of population, exports, &c.—*In progress.*

I have the honour to be, sir,

Your obedient servant,

JAMES WHITE,

Geographer.

PART II.

IMMIGRATION

IMMIGRATION

REPORT OF THE SUPERINTENDENT OF IMMIGRATION.

DEPARTMENT OF THE INTERIOR,

OTTAWA, September 17, 1902.

JAMES A. SMART, Esq.,

Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit to you my own report and those of the immigration agents in Canada, the United States and Europe, for the year ending June 30, 1902. These reports enter fully into the details of our immigration work for that period.

CORRESPONDENCE.

The correspondence of this branch is very largely increasing each year, as appears by the following table :—

The number of attachments to our files at the head office was, 1900 (6 months), 16,683 ; 1900-1901, 44,051 ; 1901-1902, 51,866.

All inquiries are promptly dealt with either by correspondence or the personal attention of our agents or both.

DISTRIBUTION OF LITERATURE.

Applications for information to the number of 90,360 were received at the head office, and to these addresses were sent 284,616 pamphlets, maps and newspapers. We also sent 90,000 pamphlets to 45,000 addresses on a special list of farmers and others in the possession of the department, and to 18,749 German addresses taken from the same list and from lists supplied by the United States agents, we sent 164,996 copies of *Der Nordwesten* and the 'Descriptive Atlas' in German.

On application from our agents in Great Britain, the United States and Canada, we sent 358 cases of literature, containing in the aggregate 321,768 pamphlets, maps, &c., and we distributed 572,200 special copies of newspapers containing immigration matter, making a total distribution of literature from the head office for the year of 1,433,380 copies.

PUBLICATIONS ORDERED FOR DISTRIBUTION.

Twenty-three separate publications were ordered for distribution, comprising in the aggregate 1,848,755 copies.

EXHIBITS.

The exhibits of fruit, grain, grasses, vegetables and minerals displayed by our agents, is undoubtedly one of the best means of affording accurate information concerning the agricultural resources of Canada. These exhibits, collected in large quan-

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ties by the department, are shown by the agents at the state and other fairs in the United States and at similar shows in Great Britain. Special travelling cases are also supplied the agents, who are thus able to take an exhibit with them, in the ordinary course of their work.

ADVERTISING.

In the United States this important part of our work has been carried on in much the same way as last year, namely, by advertising for periods of two or three months at a time in country papers, to the number of about 7,000, but in Great Britain a decided change was made, the details of which are fully dealt with in your report and that of the inspector of United States agencies, who with you visited Great Britain in January and February of the present year. The report of the High Commissioner and that of the Commissioner of Emigration for Europe also deal with this phase of the work. Special advertisements appeared in a number of Canadian newspapers with the object of pointing out to our own people the possibilities and advantages of western Canada, and the settlement regulations relating thereto.

ARRIVALS.

The arrivals for the year ending June 30, 1902, total 67,379, as against 49,149 for the previous year, classified as follows :—

British—

English and Welsh.....	13,095	
Scotch	2,853	
Irish.....	1,311	
		17,259

Continental—

Galicians.....	6,550	
Germans.....	1,048	
Hungarians.....	1,048	
Austrians	320	
Scandinavians.....	2,451	
French and Belgians.....	654	
Russians and Finlanders.....	3,759	
Miscellaneous.....	7,902	
		23,732

United States.....	26,388	
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Total..... 67,379

Those from Great Britain show an increase over last year...	5,449
Those from the continent of Europe show an increase over last year.....	4,380
Those from the United States show an increase over last year.....	8,401

Total increase..... 18,230

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The following table shows the arrivals for the years 1899 to 1902.

	1899.	1900. (six months)	1901.	1902.
United States.....	11,945	8,543	17,987	26,388
English and Welsh	8,576	4,129	9,401	13,095
Scotch	1,337	669	1,476	2,853
Irish	747	343	933	1,311
Galicians.....	6,700	4,992	4,702	6,550
Germans.....	780	476	984	1,048
Scandinavians.....	1,526	714	1,750	2,451
French and Belgians.....	413	253	492	654
Russian and Finlanders	735	1,310	1,726	3,759
Hungarians.....	276	370	546	1,048
Austrians.....	131	155	228	320
Miscellaneous nationalities.....	11,377	1,941	8,924	7,902
Totals.....	44,543	23,895	49,149	67,379

Statement showing Immigration from 1899 to 1902 under the following heads :—

	1899.	1900. (six months)	1901.	1902.
British.....	10,660	5,141	11,810	17,259
Continental	21,938	10,211	19,352	23,732
United States.....	11,945	8,543	17,987	26,388
Totals.....	44,543	23,895	49,149	67,379

CHILDREN ARRIVALS.

It is worthy of note that while it may be considered that a large number of children are arriving in Canada yearly, the supply falls far short of the demand.

YEAR.	Children Arrived.	Applications Received.
1st 6 mos. 1900.....	977	5,783
Fiscal year, 1900-01.....	1,540	8,587
" 1901-02.....	1,721	9,591

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DELEGATES.

A large number of delegates have, as usual, visited Western Canada and New Ontario during the year, those receiving transportation from the Canadian Pacific Railway through the head office here, numbering 186, from the following states and countries:—

Alabama.....	2
Connecticut.....	4
Dakota, north.....	13
Dakota, south.....	9
Idaho.....	1
Illinois.....	5
Indiana.....	14
Indian Territory.....	1
Iowa.....	2
Kentucky.....	4
Michigan.....	50
Minnesota.....	28
Ohio.....	20
Pennsylvania.....	4
Virginia.....	3
Wisconsin.....	16
Tennessee.....	1
Kansas.....	2
Sweden.....	2
Patagonia.....	2
New York.....	3
Total.....	186

The question of securing more suitable office accommodation for the immigration service in London is now in practical shape before the department and will shortly be favourably settled, thus affording better opportunities for carrying on successfully and discussing work in Great Britain and on the continent.

Canadian exhibits will be better displayed and the general public brought more easily in contact with our officials.

THE WELSH COLONY IN PATAGONIA.

The department having reason to believe that the members of the Welsh colony, established in Patagonia many years ago, were not satisfied with conditions there, and were contemplating moving elsewhere—probably to Canada—appointed in the summer of 1901, W. J. Rees, of Swansea and W. L. Griffith, our agent at Cardiff, as delegates to visit this colony, with a view to ascertaining the nature and extent of the proposed movement.

The delegates visited the colony and found a general desire prevailing to seek a home where the surroundings were more congenial, and the means of obtaining a livelihood more certain. The representations made by Messrs. Rees and Griffith regarding Canada as a field for settlement were well received, as is evidenced by the arrival during the present year of over 200 persons from this colony, who are now settled in the neighbourhood of Saltecoats, north-west of Winnipeg.

The arrivals for the year covered by this report have been well up to the standard; very few cases of sickness have been reported, and these of a not serious character.

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The large increase in the number of people entering through the ocean ports, or across the international boundary, has materially added to the duties of our officers, but I am pleased to report that these duties have been cheerfully and well performed and that complaints are particularly conspicuous by their absence.

I have the honour to be,
Your obedient servant,

FRANK PEDLEY,
Superintendent of Immigration.

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REPORTS OF THE HIGH COMMISSIONER AND EUROPEAN AGENTS

No. 1.

REPORT OF THE RIGHT HONOURABLE LORD STRATHCONA AND
MOUNT ROYAL, G.C.M.G., HIGH COMMISSIONER FOR CANADA.

LONDON, S.W., August 8, 1902.

The Honourable
The Minister of the Interior,
Ottawa.

SIR.—The fiscal year just closed has been one of unprecedented activity in connection with the emigration work of this office in the United Kingdom.

The rapidly growing popularity of Canada in this country, based upon a wider knowledge of her resources, and due no doubt also in a measure to the share which the Dominion has taken in the late war, rendered the present time especially opportune for taking special means to stimulate this interest and if possible to focus it upon the great attractions which Canada, and Western Canada in particular, offers to the British settler. In order to effect this object in a signal manner it was felt that some radical change in the methods of propaganda hitherto followed would be necessary, and considerable thought was given to the elaboration of such a policy. The measures ultimately adopted were novel in many respects. They involved a departure from the beaten road of publicity along which a government office is generally supposed to proceed and were, frankly, commercial rather than official in their conception and execution. This feature was particularly aimed at in the system and character of the advertising undertaken in the public press, and it had important and practical results. Again, the get-up and character of the special literature prepared for distribution was framed primarily so as to attract, and the circulation of the printed matter was carried out through channels and in directions which had hitherto not been attempted. Special efforts were made to interest certain classes of individuals and institutions which were considered to have opportunities of influencing others for their own good, such as the clergy of the Established Church and ministers of the various free (Non-conformist) churches, and the many organizations connected with these and other religious bodies, the head-masters of elementary and secondary schools, the public libraries, the mayors and town clerks in the United Kingdom, the working men's institutes, the parish and village reading rooms, &c. In this connection a special circular addressed to these gentlemen inviting their assistance in directing the attention of people to Canada on national and imperial grounds has led to the establishing of useful connections and enlisting the co-operation of public spirited men and women on behalf of Canada in all parts of the country, a policy which it will be my endeavour to cultivate with all possible attention.

The presence of the Deputy Minister of the Interior in England early in this year was also availed of to secure the publication of extended interviews with him in all the leading metropolitan and provincial papers. The result of these efforts I am glad to say became immediately apparent in the volume of written inquiries received.

Another important feature in the work of this office during the present year arose out of an innovation suggested by the Deputy Minister, viz., the organization of specially conducted parties. It was held that that additional sense of security

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would be created in the minds of those intending to emigrate were parties of emigrants organized at stated intervals and conducted to Canada in charge of government officials. Seventeen such parties in charge of officials connected with the department's emigration propaganda in this country and other gentlemen selected by the Department of the Interior, left the ports of Liverpool and Glasgow between March 6 and June 19. The suggestion proved in practice a most popular one. The results attained have justified, in every particular, the experiment, and I strongly recommend the continuance of this policy next season.

My remarks on the measures taken in connection with bringing Canada prominently before the British public would not be complete without reference to the prominence which was secured for the country by the action of the Department of the Interior in authorizing the erection of the Canadian Arch in Whitehall in connection with the arrangements made for the coronation of His Majesty the King. It is the merest truism to say that Canada's proposal to identify herself in this original and striking manner with the coronation programme was received with the greatest appreciation by the British public and press. The structure which has stood for so many weeks in Whitehall has remained throughout one of the chief centres of attraction and interest, not only to Londoners, but to the vast number of visitors who have come from all parts of the world to the metropolis. It was impossible in the time allotted for preparing and carrying to completion this project, to represent Canada in all the varying phases of its productive life. A more elaborate presentation of the Dominion could probably have been given if no other idea had been present in the minds of those charged with the erection of the arch than that of broadly advertising the Dominion. A proper sense of propriety in respect to the time and the occasion had to be observed, and while the arch was decorated so as to bring clearly to the minds of the British public some conception of the vast cereal capabilities as well as possibilities of the Dominion incident to the future development of its resources, the supreme occasion could not be forgotten for which the permission for the erection of the structure had been secured.

The press in the United Kingdom as well as in Scandinavia, Germany, Austria, Russia, Holland, Belgium and France have described, with most favourable comments, this original and characteristic enterprise on the part of the government of Canada. On account of this, Canada has been given a prominence in ordinary journalistic work in the illustrated newspapers and periodicals commensurate with its importance as an integral part of the British Empire, and certainly not second to the prominence which for so many years has been given to Australian and South African interests in this metropolitan city of the Empire. There can be but little doubt that the erection of the Canadian arch in Whitehall has brought more clearly to the minds of the British public the vast resources and possibilities of the Dominion than had ever been done or is likely to be done under ordinary circumstances.

The conclusion of the war has brought the emigration propaganda for Canada into active competition with efforts put forth through Imperial official sources to divert the stream of emigration which has hitherto gone from Great Britain either to the United States, Canada or Australia, to South Africa, where the great problem in connection with the imperialistic idea of governing our new dependencies is to increase as much as possible and strengthen the English speaking communities in those countries. It has been evident for two years or more, as I have already had occasion to intimate to you, that the authorities in this country would very likely co-operate with those in South Africa in offering special inducements to British subjects to people the newly-acquired dependencies on the conclusion of the war, and the appearance this week of the new blue-book on South African affairs detailing the recommendations that have been made by Lord Milner for placing settlers on the land with government assistance will explain the wide reaching and formidable character of the operations to be undertaken.

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The fact that in carrying on an emigration propaganda for Canada, competition of this character is encountered, makes it all the more necessary that there should be no relaxation of our efforts. The Department of the Interior is, I feel, strongly possessed of this idea, so that I have no doubt I shall continue to receive its co-operation in presenting Canada to the people of this country as a field where the prospects for success under ordinary circumstances, are at least as favourable as in any other part of the world.

Your obedient servant,

STRATHCONA.

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No. 2.

REPORT OF W. T. R. PRESTON, COMMISSIONER OF EMIGRATION FOR GREAT BRITAIN AND EUROPE.

LONDON, August 6, 1902.

The Right Honourable
The High Commissioner for Canada,
London.

MY LORD,—The financial year which has just closed has established a record in connection with emigration work in Great Britain and the continent of Europe.

The organization for an effective propaganda throughout Scandinavia and Europe is of a satisfactory character, increasing in efficiency, and is calculated to result in a movement towards Canada of the most desirable classes of emigrants.

Incident to the special efforts which were put forth in carrying on an emigration propaganda in the United Kingdom, as the outcome of the visit of the Deputy Minister of the Interior, and the Inspector of the United States agencies to this side of the Atlantic, the written inquiries received at this office alone to June 30 reached the unprecedented number of 19,000 in comparison with 8,700 of the same class in 1901, and 6,000 in 1900. I should add that the inquiries made in person were on a correspondingly large scale.

Incident to the change in the management of this office an early decision was arrived at to effect a radical change in the methods of advertising hitherto followed. The benefits to be derived from this became evident within a day or two after the adoption of the new policy. The correspondence became so voluminous that additional clerical assistance was immediately required, and the lengthening of the office hours became an absolute necessity. It needed all the attention that could be given to the details of the work to keep up with the continual demand for information from personal inquiries and by correspondence.

Early in the year it was evident that a much larger movement towards Canada would take place from this side of the Atlantic than heretofore. The bookings commenced earlier in the season, and long before the time fixed for the sailing of the more favoured steamships all the accommodation was booked. The more closely the full details of these arrivals in Canada are inquired into, and compared with former years, the more marked the character of this unprecedented movement towards Canada will be seen.

In consequence of the changes which were contemplated in carrying on the work in Scotland owing to Mr. Grant's services being dispensed with and Mr. Duncan being transferred to London, it was considered necessary to secure the more hearty co-operation of booking agents in Scotland, and the northern part of England, more especially, in furthering emigration to Canada. With this object in view several of these gentlemen were appointed as sub-agents of the department, and were offered special inducements in order to secure their assistance in favour of Canada, by making it worth their while to advance Canadian emigration in preference to that of emigration to other parts of the world. It might be borne in mind that in this particular booking agents very frequently have considerable influence with local residents who, desiring to emigrate, possess very little knowledge of the various countries of the world, and naturally look to the booking agents as authorities upon questions of that character.

Advertising the personally conducted parties, furnishing the steamship companies, including the Elder-Dempster Company, with the lists of applicants for information at the various government offices, the appointment of local booking agents as sub-agents

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of the government, and allowing them to advertise that fact, resulted shortly afterwards (in a most unexpected manner), in the department finding itself in conflict with the representatives of the great North Atlantic Steamship Combine.

It might be explained here that for several years a conference or combination has existed in connection with the North Atlantic emigration traffic between all the great steamship lines, with the single exception of the Elder-Dempster or Beaver Line. The 'Conference' was undoubtedly established with a view to 'protecting the interests of the steamship companies and of fixing the minimum rate which could be charged by the companies for trans-Atlantic transportation.' These rates were maintained by the 'Conference Lines' under severe penalties for the infraction or violation of the terms of their agreement.

The Elder-Dempster Line, however, had remained out of the 'Conference' and was at liberty, and probably sometimes took advantage of its liberty, to quote a lower steerage rate under certain circumstances than the 'Conference Lines' were willing to compete against. The 'Conference Lines,' comprising as they do all the great steamship companies, with the one exception, have in the aggregate some thousands of booking agents stationed in every important centre or locality throughout the United Kingdom. These booking agents sometimes represent two or three or more of the steamship companies, and they are debarred by the regulations of the steamship conference from representing any steamship company, or from booking or selling tickets by any line not in the 'Conference.' The effect was that the Elder-Dempster Company were able to have but a limited number of agents throughout Great Britain as compared with the vast number of those who worked under the regulations of the 'Conference.' From this it will be seen that under ordinary circumstances, and in view of the expense that had to be incurred by advertising their own line and standing practically alone in competition with the 'Conference Lines,' the Elder-Dempster Company was under a serious disadvantage. But with the possession of the names on the list of inquirers at the government offices they were enabled to communicate from their head office directly with these prospective emigrants, and on that account proved a much more serious competitor than they had been enabled heretofore to be. This naturally disturbed the 'Conference Lines,' and they proceeded to take certain steps which they regarded as necessary to protect their interests, in the hope of being able to avoid this competition on the part of the Elder-Dempster Company.

It was represented that in the interest of all concerned, and in view of the desirability of the steamship companies and their booking agents continuing to work in harmony with the department, it was necessary that the aggressive policy which had been adopted by this office in the carrying on of its propaganda should be changed. It was therefore suggested :

- (1) That no more specially conducted parties should be sent ;
- (2) That the addresses of steamship companies should not be given in the government advertisements ;
- (3) That lists of inquirers or applicants for information at the government offices should not be sent to the steamship companies ;
- (4) That the shipping or sailing notices of the steamship companies should not be sent out with the departmental literature ;
- (5) That the appointment of sub-agents from among the booking agents should be discontinued ;
- (6) That the appointments already made should be cancelled immediately ; and, practically, that the carrying on of an emigration propaganda should be left with the booking agents of the country.

In order to more thoroughly understand the situation of the booking agents in respect to the Steamship Conference or Combine, it ought to be explained that in licensing booking agents several conditions are attached to the form of appointment. One is that no advertisement shall appear with the consent or responsibility of the booking agent in question which has not previously been submitted to and approved of by the secretary of the 'Conference.' So that when booking agents advertised them-

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selves as having been specially appointed by the department of the Canadian government to give information in their respective localities, technically they were violating one of the conditions under which they were licensed to do business. This particular restriction is, I understand, placed upon the booking agents with the intention of preventing an appearance of undue competition between the representatives of the respective lines, as it is one of the conditions of the steamship conference that one line shall not specially advertise itself as furnishing better facilities and better accommodation than the others. In connection, therefore, with the appointment of booking agents as sub-agents of the department and advertising them as such, it immediately gave the favoured ones a status in public estimation in their several localities which the avoidance of competition on the part of the steamship companies rendered undesirable from their standpoint. This attitude of the conference of course presented for consideration whether the policy specially favoured by the department should be carried out and had to be weighed in all its phases. The conclusion was reached that in the carrying out of the aggressive policy already indicated greater advantages were to be derived by the department than any disadvantages which could possibly accrue from a rupture with the steamship conference agents. The secretary of the 'Conference' was not slow at a certain stage of the correspondence between the department and the representatives of the steamships interested, in taking the first steps with a view to the cancellation of the licenses or the withdrawal of the agencies of the steamship companies from the sub-agents of the department.

It is needless to point out the undesirability of entering upon what might be termed a serious conflict between the department and the great army of steamship conference booking agents throughout Great Britain; and yet the department of a government could not afford to accept the suggestion or dictum of any steamship combine as to its general policy, when the acceptance of the 'suggestion' in question simply meant the cessation of an active propaganda by the government of Canada among the emigrating classes of the United Kingdom.

No one having any acquaintance with emigration work in Great Britain can fail to see the serious aspects of the situation thus presented for the consideration of the department (no matter what form this fear of a misunderstanding might assume). The advantages of working in harmony with the booking agents throughout the Kingdom are self-evident, and yet the acceptance of the 'suggestion' from the steamship companies revealed the possibility of the Canadian emigration propaganda being relegated to a question of less than secondary importance by the booking agents. The prospect of possibly finding the department in conflict with the representatives of the North Atlantic Steamship Conference throughout Great Britain was not one that could be regarded with indifference. Nevertheless, it was apparent that neither from the fear of such a contingency nor the probable immediate disadvantages arising from such circumstances could a department representing the Dominion of Canada afford to accept such suggestions, or have its public policy dictated by any company or combination of capitalists or corporations no matter how great or vast might be their influence.

Believing that this would be the view accepted by the Department of the Interior, I took the responsibility of replying to the suggestion or demand which was made by an intimation that all the power and influence which the government of Canada possessed would be put in operation with a view to successfully combatting these influences, if the steamship companies undertook to carry out the threat.

The result of the policy which has been carried on during the last few months carries conviction that the question of success or failure in respect to an emigration propaganda in this country depends upon the mode adopted to direct the attention of the British public to the Dominion, and upon the manner in which the carrying out of that policy is effected.

A reasonably liberal expenditure for advertising, the preparation of advertisements outside the ordinary line of government advertisements, the carrying on of the work of the propaganda more along the lines of a commercial than a government office, and thus free from the restraints which sometimes exist in the public service, have proved

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beyond doubt that a much more favourable return can be secured from emigration work in Great Britain than has heretofore been evidenced.

The number of inquiries in all the offices from January 1, aggregates more than double the number of any preceding year, and that these inquiries were not actuated simply by curiosity, but really from a desire to know something of the Dominion with the intention of emigration, is evident from the returns of the departures from Liverpool and Glasgow and the arrivals at Canadian ports.

In addition to the advertising having been taken out of the ordinary avenues, special efforts have been made to circulate among the farming and emigrating community large numbers of publications specially prepared for that purpose. From these also there has been a return, if not as large as that which has come directly from advertising, at least a return indicating that the seed has been sown which in due time will bring forth a satisfactory harvest.

This report would not be complete in explaining the prominence which the Dominion has secured during the last fiscal year throughout Great Britain without a reference to the coronation arch in Whitehall.

Changes have been made in the general work in Great Britain by the removal of Mr. O'Kelly's headquarters to Belfast, by the services of the government agent at Dumfries being dispensed with, and by the removal of Mr. Duncan, formerly of Carnoustie, to the London office. Mr. Webster, who has been associated with Mr. Devlin in the work in Ireland, was also transferred to this office and these changes, together with the appointment of Mr. Hichman, formerly representing New Brunswick as emigration commissioner in Great Britain, will enable this department to devote very much more attention to the lecturing field in England than has been done hitherto. The experience which the gentlemen now attached to the London office have had in their respective fields will place them at once in the position of entering into a systematic lecturing propaganda at the beginning of the coming season. A new office is opened at Birmingham for conducting more effectively the propaganda in the midlands, where Mr. Mitchell, of the Liverpool office, is in charge.

During the last few months most persistent efforts have been made to secure more suitable premises in one of the great centres of London than those now occupied. It has long been considered advisable to locate the emigration branch of the London office in a position where an effective display of Canadian products might be made and which would be also conveniently situated for the general inquiring public. In this particular the efforts of the department have been successful. It is only when an effort is made to secure premises in what might be regarded as a desirable locality that one can fully appreciate the difficulty of finding quarters of that character in London. There can be no question that if a continual new and replenished exhibit can be made of the agricultural products of the country in the new premises very great advantages will accrue to Canada. In securing the premises, an increased liability has been incurred in respect to rent, but there is no doubt that the increased expenditure will be more than justified by the immediate return which will be secured from such an exhibit being placed in a favourable or easily accessible locality.

There should be no relaxation on the part of the Emigration Branch of the Department of the Interior in presenting Canada as a field where the prospects for success, under ordinary circumstances, are at least as favourable as in any other part of the world. Therefore, by advertisements of a more attractive character, and the circulation of literature upon a wider basis, the efforts to reach the emigrating or restless population must be undertaken systematically and thoroughly. The conditions necessary for the carrying on of successful work of this kind have necessarily changed during the last few years, so that a policy which may have been moderately successful in the past will not now answer the same purposes. I am more firmly convinced than ever that it is necessary for the Emigration Branch of this department to be managed in Great Britain on other lines than those which are usually supposed to characterise English government offices. The work in this country must be entirely of an ordinary business

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character, if anything like the return is to be secured which the department naturally expects where the operations extend over such a wide field, and where necessarily the expenditure must be comparatively great.

I think I can assure you that the Canadian officials who are charged with this responsibility in Great Britain are convinced that this is the policy which must be adopted, and that in carrying on the work on these lines their most hearty co-operation can be depended upon.

The experience which has been secured by a residence in this country extending over three years, has convinced me that there is practically no limit to the work which can be done in Great Britain in constantly keeping before the public eye the advantages which Canada affords as a field for emigration. People in this country apparently quickly forget questions which are brought to their attention. A subject may be referred to in the press and apparently the people will become possessed of the details of the information which may be mentioned, and yet a week afterwards the fact will be entirely forgotten. Its republication comes to them as an absolute novelty. This is true in ordinary life, and is accentuated to a degree which is scarcely credible in respect to the continual publicity that is given of the opportunities which are offered by Canada as a prosperous and progressive country.

The interests of the Dominion, social, commercial and political, can be presented for public notice in various forms, so as to ensure the recognition of Canada being a place of considerable importance. As that idea becomes ingrained in the minds of the British public it will naturally give rise to an inquiry as to Canada being a favourable place for settlement. For many years Australia was kept in this position by the publicity which was given to its interests in the public press. The late Cecil Rhodes lost no opportunity of presenting every phase of modern life in South Africa, social, commercial and political, to the British public, so that for a long while it seemed to the British mind that Australia and South Africa were the two great dependencies deserving public attention. Canada can easily secure prominence of a similar character in respect to all the interests in the Dominion, and the public will soon become as anxious for information on various Canadian subjects as they have long been in respect to the same in Australia and South Africa. No occasion should, therefore, be lost to present aspects of Canadian life for the consideration of the British public.

Unfortunately, however, there are correspondents in Canada for the English press, and for one or two of the great press agencies, who are apparently convinced that it is not only advisable but that it is absolutely necessary to send the most exaggerated accounts of trivial incidents to the English press. A hail-storm, an early snow-storm, an unusual drop in the temperature in midwinter, a flood in some almost unknown creek; these are recounted with great exaggeration as 'sweeping over Canada.' Incidents of a public nature which would prove interesting to the British public and assist in keeping Canada in the race with South Africa and Australia are carefully omitted, correspondents being apparently more anxious to furnish senseless reading matter than items of useful and reliable news. This unfortunate situation should be overcome so that aspects of Canadian public and commercial life, and the marvellous development of the Dominion should continually appear in the columns of the British press. Great advantages would undoubtedly accrue to Canada from reasonable publicity of this character. Everything that can be done on this line will not only place the Dominion in a more favourable light before the English public, but will assist in enabling the masses of the population to realise the fact that Canada is in the vanguard upon all commercial, social, moral and political questions. This will naturally create a spirit of inquiry among those who are looking for new avenues in life, or seeking for new homes, where they and their families will have a much better chance for success than they can possibly have in the continually and increasingly over-crowded centres of Great Britain.

Your obedient servant,

W. T. R. PRESTON. --

No. 3.

REPORT OF G. H. MITCHELL, ASSISTANT CANADIAN GOVERNMENT
AGENT AT LIVERPOOL.

15 WATER STREET,

LIVERPOOL, July 18, 1902.

The Right Honourable
The High Commissioner for Canada,
London.

MY LORD.—I have the honour to present my report for the year ending June 30, 1902.

The emigration from Liverpool during the twelve months has been greater than in the previous year, and the increase in the numbers for the last six months, as compared with the corresponding period of last year is particularly noticeable.

The figures are as follows according to the British Board of Trade Returns, which, while giving accurate totals, are, as you know, subject in the case of Canada and the United States to certain modifications. These are in favour of the Dominion as regards British emigration and against it in respect to foreigners. It should be stated that the numbers include saloon passengers.

TO UNITED STATES PORTS, 1900-01.

	British.	Foreigners.
From July 1 to Dec. 31, 1900.....	29,563	26,006
From Jan. 1 to June 30, 1901.....	23,826	30,056
Total for 12 months, 1900-01.....	53,389	56,064
Grand Total for 12 months, 1900-1.....		109,453

TO CANADIAN PORTS, 1900-01.

From July 1 to Dec. 31, 1900.....	10,221	14,322
From Jan. 1 to June 30, 1901.....	5,341	15,236
Total for 12 months, 1900-01.....	15,562	29,558
Grand Total for 12 months, 1900-1.....		45,120

TO UNITED STATES PORTS, 1901-02.

From July 1 to Dec. 31, 1901.....	31,811	30,658
From Jan. 1 to June 30, 1902.....	21,003	41,413
Total for 12 months, 1901-02.....	52,814	72,071
Grand Total for 12 months, 1901-2.....		124,885

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TO CANADIAN PORTS, 1901-02.

From July 1 to Dec. 31, 1901.....	8,320	11,181
From Jan. 1 to June 30, 1902.....	10,950	21,238
Total for 12 months, 1901-2.....	19,270	32,419
Grand Total for 12 months, 1900-2.....		51,689

The quality of the British emigrant to Canada continues to be good; indeed there can be no doubt in the mind of any one who sees those leaving the port, that the Dominion is attracting the best class, largely composed of those who have some capital (or who can command it when openings present themselves), agriculturists and young men who intend to gain a knowledge of Canadian methods of farming and local conditions before taking up land for themselves. So far as my personal experience goes, and it extends over twenty-two years, never have there been so many men with capital emigrating or contemplating emigration as during the twelve months just ended; within the last two or three weeks I have been in communication, and have had interviews with half a dozen people who have over £10,000 between them and who are making inquiries with a view to settling in the Dominion.

I see in the English as well as in the Canadian returns that a large proportion of the emigrants are described as 'general labourers,' but this is by no means an accurate description of, I should say, the majority of them; it is apt to be misleading and is due to want of information on the part of the steamship companies who make the returns. I am sure that most of the emigrants under this heading are men who, if not straight from the land, have at any rate had agricultural experience at some period of their lives, and are leaving with the intention of re-starting farm work.

Comparatively small numbers of domestic servants have emigrated, the really competent girls needed in Canada being in great demand at good wages in this country. A desire for change induces some to go out and no doubt more could be obtained if the passage money were advanced.

The office was visited in the early part of the year by the Deputy Minister and certain instructions were given and suggestions made with a view to greater efficiency. Following this a system of emigration parties was organized, one of which it was my privilege to accompany. I sailed in the ss. *Numidian*, for Halifax, on April 3, with 648 passengers; 373 English and 275 foreigners. The opportunity this afforded me to see how the emigrants were handled on arrival, and with what kindness and consideration they were given invaluable assistance and advice by the agents of your department at the port of landing and at various places en route, will be, and indeed has already been, of the utmost advantage in my work. The value also to your agents, and therefore to their work, of obtaining a personal knowledge of the rapid developments which are taking place in the Dominion and more particularly in the west, cannot be over-estimated.

The widely-spread press paragraphs in connection with the formation and sailing of these parties proved a valuable advertisement and brought much correspondence. The result of the largely increased newspaper advertising which also followed the Deputy Minister's visit showed that the contention, often advanced, respecting the value of this form of advertising was justified. Immediately our announcement appeared inquiries poured in at a rate never before experienced, and it took all the energies of the staff to deal with them. They were of course from all sorts and conditions of men, but more than enough to warrant the expenditure, came from people whom it would be desirable to secure for Canada and who evidently had thought further of the idea of settling in the Dominion suggested to them by our announcement.

The number of letters received during the year making inquiries on the subject of emigration, was 7,557, in addition to official, trade and general letters numbering 1,945.

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The total number of communications sent out was 10,586.

The number of children sent out by philanthropic societies has been rather greater than last year ; there were 41 parties, comprising 1,774 children. All these were inspected and certificates given in accordance with your regulations.

The work of the Emigration Committee of the Society for Promoting Christian Knowledge, supervised by the Rev. John Bridger, of this city, the organizing secretary, has been carried on as usual at this office and has necessitated the writing of nearly one thousand letters.

There has been some slight falling off in the number of requests for the loan of the lantern slides, of which I have had four sets at my disposal, but this work could be stimulated if new scenes were supplied and the fact advertised by paragraphs in scholastic and other papers.

The other official and routine work as described in some detail in my last report has received the same attention as in previous years.

Your obedient servant.

G. H. MITCHELL.

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No. 4.

REPORT OF ALFRED F. JURY, CANADIAN EMIGRATION AGENT FOR
THE NORTH OF ENGLAND.15 WATER STREET,
LIVERPOOL, September 3, 1902.The Right Honourable
The High Commissioner for Canada,
London.

MY LORD,—I have the honour to submit my sixth annual report since my appointment to this agency.

The work during the first six months of the year was similar to that of previous years, my time being fully occupied in attending agricultural shows, lecturing and in visiting those making inquiries with a view to their settling in Canada. It is unnecessary to deal at any length with this work as its scope and importance have been fully described in previous reports.

I am pleased to be able to record a large increase in the number of intending settlers leaving this part of England for the Dominion, and I believe this to be largely due to the efforts we have made during the last few years. In previous reports it has been pointed out that the work being done during the wave of prosperity which was then visiting England would have its results when that wave commenced to decline, and last year's figures bear out that prediction. The immense amount of literature distributed during the time that people were not emigrating began to show results as soon as the emigration movement recommenced and the good effect was increased by the larger amount of money spent in newspaper advertising, a policy which has been advocated for years as being one most certain of obtaining desirable results.

During the latter part of the year I was engaged in getting together a party to proceed to Canada under my personal guidance, but at the last minute the party was handed over to Mr. Just, of the London office. I then obtained leave of absence to visit Canada, and while there I spent five weeks in Manitoba and the North-west Territories, which gave me an opportunity of renewing my acquaintance with that country and making observations which improved my knowledge and will be of great service to me in my future work in this country.

As heretofore everything possible will be done to carry on the work in a manner calculated to produce the best results.

Your obedient servant,

ALFRED F. JURY.

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No. 5.

REPORT OF W. L. GRIFFITH, AGENT IN WALES.

OTTAWA, July 17, 1902.

To the Right Honourable
The High Commissioner for Canada,
London.

My LORD,—I have the honour to submit my sixth annual report from this agency.

During the past year the matter of inducing the Welsh settlers in Chubut, Argentine Republic, to emigrate has occupied a very considerable portion of my time. In accordance with my instructions, in August last, accompanied by Mr. W. J. Rees, J.P., of Swansea, I proceeded to Patagonia to investigate the conditions of the Welsh settlers with a view to arranging for their removal to Canada. A special report dealing exhaustively with the mission of Mr. Rees and myself has been submitted, and it is, therefore, unnecessary to deal further with this feature of my work.

After returning to England Mr. Rees and myself commenced immediate negotiations along the lines which our investigations in Patagonia suggested as necessary. After consulting with Welsh friends it was thought best to approach the Right Honourable Joseph Chamberlain, Secretary of the Colonies, with a request that the British government should furnish a transport for the purpose of carrying the Welsh settlers, together with their animals and other effects, from Port Madryn, in Patagonia to a landing port in Canada. Mr. Chamberlain, when representations had been made to him, agreed to receive a deputation from Wales who were anxious to press this matter. The deputation was one of the most influential that ever went from Wales. It was introduced by Sir Albert Thomas, M.P., the chairman of the Welsh Parliamentary Party, in a few remarks in support of the object in view from the introducer and supported by speeches from Sir John T. D. Llewelyn, Bart., Sir John Jones Jenkins, Mr. Gwilym Lewis, a returned settler from Patagonia, Mr. W. J. Rees and myself. The attitude of Mr. Chamberlain is a matter of recent history.

After being received by Mr. Chamberlain, the deputation adjourned to the Hotel Victoria where they were entertained at luncheon by Sir John T. D. Llewelyn, and in the course of the proceedings a fund was started for the purpose of assisting the Welsh settlers from Patagonia to Canada, and before the dispersal of the company the sum of seven thousand dollars was subscribed in the room. The fund was afterwards increased to between eleven and twelve thousand dollars.

A committee was formed for the purpose of fostering the movement, consisting of the following :—

The Right Hon. Lord Tredegar, Sir William Thomas Lewis, Bart., Sir John Jones Jenkins, Sir Alfred Jones, K.C.M.G., The Hon. George Kenyon, M.P., William Jones, Esq., M.P., Joseph Lawrence, Esq., M.P., W. Abraham, Esq., M.P., Robert Forrest, Esq., D.L., J.P., John Cory, Esq., J.P., George Riddell, Esq., Chairman of the Western Mail, Limited, William Williams, Esq., J.P., David Davies, Esq., Plasdinam, W. J. Rees, Esq., J.P., William Thomas, Esq., J.P., Clifford Cory, Esq., J.P., the Editor of the *Western Mail*, the Editor of the *South Wales Daily Post*, T. W. James, Esq., Thomas Andrews, Esq., J.P., W. J. Parry, Esq., J.P. Chairman—Sir John T. Dillwyn Llewelyn, Bart. Hon. Treasurer—Alfred Thomas, Esq., M.P. Hon. Secretary—W. L. Griffith, Esq.

It was hoped to secure about thirty thousand dollars, for which sum a transport would have been available, which would have carried the settlers direct from Patagonia

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to Canada. Owing, however, to various causes and to obstacles in the way of the movement, the committee came to the conclusion that it would be impossible to procure the amount of money necessary to hire a transport-ship in time to remove the people this season. It was, therefore, after much consideration, thought advisable to make arrangements with the Pacific Steam Navigation Company, whose line of Royal Mail steamers and boats ply between Liverpool and the west coast of South America, to transfer the settlers to Canada, and after negotiations they made a proposition to the committee which was considered acceptable, and which included transportation from Port Madryn, Patagonia, to Liverpool, the cost of the stay-over in that city, and the journey across the Atlantic to Quebec. The company also further agreed to transport all subsequent parties of settlers at the same rate, even supposing they should not be so numerous as those composing the first lot. By this arrangement the vexatious delay which would inevitably take place if the ordinary route from Patagonia to Liverpool was taken was avoided, and as the Pacific Steam Navigation Company is a first-class passenger line, there was a guarantee that the settlers would receive good treatment.

They left Port Madryn on May 14 and arrived in Liverpool June 9, where every provision was made for their comfort during their stay.

The advent of the Welshmen in England created widespread interest; telegrams expressing good-will were received by the settlers from His Royal Highness the Prince of Wales, the Right Honourable Joseph Chamberlain, Sir John T. D. Llewelyn, Bart., Sir Alfred Thomas, M.P., Mr. W. J. Rees, J.P., and many other prominent gentlemen. A luncheon was also given in honour of the settlers by the Welshmen of Liverpool at the Liberal Club, and the speeches delivered at this function created a great deal of interest throughout the principality.

The Welshmen sailed for Canada on the Allan Liner *Numidian* on June 10. A portion of this vessel was set apart for the sole use of the settlers, which was a privilege much appreciated by them. Altogether the arrangements made on their behalf by this company are much to be commended. A letter of thanks addressed to Mr. Ennis, the Passenger Manager of the line, and signed on behalf of the settlers by a committee of four, expresses the utmost satisfaction with their treatment on board the *Numidian*.

The treatment accorded by the Canadian Pacific Railway was most generous, and their action in quoting a special railway rate to the committee for the transportation of the settlers from Quebec to Saltcoats was of the utmost value, and no doubt, will be always gratefully remembered by the Welsh people now in Manitoba.

It is very easy for one so closely identified with this movement as I have been to over-rate its importance, but I think it may be fairly stated that the influence of this movement, always supposing that the Welsh now in the North-west Territories are successful, will be very great among Welshmen the world over. To begin with, a further very considerable movement from Patagonia may be taken as assured, and the migration has served to focus the attention of Wales and Welsh colonies of the United States on our country. I also think that there is a very considerable population in various parts of South America who may be regarded as possible emigrants to Canada, whose attention will also be secured. After investigating, I was informed that the Scotch sheep farmers of the Falkland islands are over-crowded, and the movement of the Welshmen might easily bring about a transference of a considerable Scotch population whose present prospects are anything but rosy.

The Welsh settlers are splendidly adapted for life in a new country; they can put up their own buildings; they are splendid stockmen, and are thoroughly acquainted with what roughing it in a new country means. I think it may be claimed for them that they are equal to the best settlers now being received by Canada.

Too much credit cannot be given the various members of the Welsh Patagonia committee, who worked so hard and contributed so liberally to the fund. The action of these gentlemen was influenced, not only by sympathy for fellow-countrymen anxious to become repatriated, but equally so by good will towards Canada. Every one interested in the movement will accord very special thanks to Sir John T. D. Llewelyn,

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Bart., Sir Alfred Thomas, M.P., Mr. W. J. Rees, Swansea, and the Proprietors and Editor of the *Western Mail*, who have always given Canadian interests a splendid support.

While my mission to Patagonia occupied a considerable portion of the current year, still I was able to return to Wales about the middle of December, and to give my full attention to the ordinary work of the agency during the busy season. As I am writing this report at Ottawa, and the records of my office are not available, I regret that I cannot go into details as much as I would like. There has, however, been a considerable increase in inquiries by letter and also personal inquiries compared with the corresponding term last year; there has also been a gratifying increase of emigrants leaving Wales for Canada, and if the returns for July and August are as favourable as in the earlier part of the season, there will have been a record emigration from Wales to Canada.

During the past summer Mr. Adamson, of Virden, visited this agency for the purpose of procuring a number of competent farm hands for Manitoba. I did all in my power to further Mr. Adamson's project, and within a very short time I introduced to that gentleman a considerable number of young men of a very desirable class to accompany him to Manitoba in June.

There is a tendency to judge the value of the work done by the immediate results achieved, but that much of the results of our propaganda are deferred is well known. Concrete instances could be quoted *ad lib.*, going to show that any gauge which only allows for immediate results is not a fair one.

When the work of this agency was commenced, the annual emigration from Wales to Canada was something over twelve, all from the town of Cardiff. Now, there is a considerable movement to which every county in Wales, as well as Patagonia, contributes a share, and the movement is a growing one. It is difficult to arrive at a precise statement in regard to the number of emigrants. The bonus returns furnish no test. The head offices of the steamship companies book the bulk of the passengers in Great Britain, and probably so far as Wales is concerned, book a larger proportion than elsewhere. Liverpool is known as the capital of Wales, and from its proximity to the principality, the majority of the bookings are made at the head offices of the company in Liverpool. These bookings do not appear, as no bonuses are allowed to the steamship companies.

In addition to this, within a radius of thirty miles from the office of this agency, there is a very large population of persons who have removed to the contiguous counties of England, viz., Herefordshire, Somersetshire, Gloucestershire, Shropshire, Devonshire and Cornwall, and many of these persons have been influenced to emigrate through our work in Wales. Before sailing they go back to their homes for a short stay before emigrating, and consequently no record would show that they came from one of the above mentioned counties, and would give no indication of the fact that their emigration was induced by the work of this agency in Wales.

Your obedient servant,

W. L. GRIFFITH.

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No. 6.

REPORT OF H. M. MURRAY, PRINCIPAL AGENT FOR SCOTLAND.

52 St. ENOCH SQUARE,

GLASGOW, June 30, 1902.

The High Commissioner for Canada,
London.

MY LORD,—I have the honour to submit my report in connection with the work of emigration in Scotland for the year ending June, 1902.

I am glad to be in a position to state that during the fiscal year now ended, and more especially, the last six months of it, the numbers who have gone out to Canada are far in excess of previous years. The quality of the men and women has also been well maintained, while in some cases quite an amount of money was taken out. I think it would be within the mark to place the average per male adult at £100. The scarcity of experienced ploughmen in Scotland is becoming a serious problem to the farmer; every hiring fair makes it more and more difficult to secure a full supply of competent men, large numbers having drifted into the towns and cities where they have obtained employment as carters, draymen and positions on the various railways. Quite a number of these men attracted by the present enormous prosperity of Canada are now going out. This year also we have had many inquiries and departures from young respectable men, with no previous experience of agricultural life, who have gone out with the intention of gaining experience before taking up land for themselves, and I am glad to learn from the Commissioner at Winnipeg that situations have been found for all. The inquiries this year for free or assisted passages have been fewer than heretofore; the majority of them being from persons, who, under any conditions would make poor settlers.

It is to be hoped that those who have gone out will meet with success and be able to send encouraging reports back to friends in this country, which, when all is said and done, is the best missionary work in the cause of emigration.

I was glad to note that your lordship, on behalf of the Department of the Interior, was again this year offering to the various schools a medal to the writer of the best essay on Canada, its history and geography. While some of the essays are very fair, quite a few display a lamentable ignorance of things pertaining to Canada. The demand for our text-book, as also the small atlas has been very great, and I have supplied many school teachers, who made application. I am bound to say that priority of position must be given to the female competitors, they having done the cleverest and most intelligent work.

When last year's report was written, the Glasgow International Exhibition had just been opened. It was continued until November with pronounced success, and was visited by nearly twelve million persons. The money drawn from all sources amounted to £408,000, with an estimated profit of £80,000. Canada's share at this show was a magnificent one; our display of forestry, horticulture, agriculture, dairy produce, implements and manufactured goods, &c., being far and away ahead of any other exhibit. Our court was thronged day and night with interested and intelligent visitors, who were eager in their inquiries, and gladly took home with them some of our literature, which was freely given to all desirous of obtaining a supply. Many of those who have gone out this year have told me that they were first interested by our splendid display at Glasgow. A continuation of this work is carried on in miniature fashion by our visitation at agricultural shows, a few of the more important being visited

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throughout the season. This year, owing to the withdrawal from Scottish work of Messrs. Duncan and Grant, the majority of the minor meetings have been left out, and I think with no loss to our results, as a great number of these one-day shows, owing to sports and other attractions, only mean three or four hours work to the agent; and in many cases the results do not justify the expenses incurred. Instead of exhibiting, arrangements are made for a liberal distribution of our literature, which is well taken advantage of by the country people who usually attend.

Lecturing, with the aid of lantern views was carried out in the usual manner during the winter months. Apart from the agent's work nearly 200 meetings were held by voluntary lecturers, who used our slides and distributed our pamphlets.

As in past years a number of domestic servant girls have gone out on their own initiative, as also a small party whose fares were advanced by Mrs. Sanford. It is very hard to get girls to pay their own way out. Several fares have been sent me through the Commissioner at Winnipeg, and I have, in all such cases, been able to send respectable, intelligent girls. It will give me pleasure, when any one sends over a fare, to do my utmost to select the class of domestic wanted.

The visit of the Deputy Minister to Great Britain and the publicity given to his statements regarding Canada's great prosperity, have been of enormous advantage to our work; as also the increased advertising and issue of printed matter setting forth in plain but convincing terms, the present condition of Canadian agriculture. The withdrawal of Messrs. Duncan and Grant from emigration work in Scotland and the substitution instead, of a few special booking agents—to whom an extra bonus on each emigrant is paid as an inducement to give special attention to Canadian business—more especially when combined with the occasional visitation of one or more of our practical farmers, who afterwards conduct the parties to the west, is an experiment, which so far as it has gone, has had fair results. The conducting of parties through to Winnipeg, is a part of the scheme which is and will undoubtedly be of the greatest benefit to the work of emigration. The mere fact of some one accompanying the party gives each individual a sense of security and a feeling of confidence that he will not be left stranded on his arrival.

The results of the present fiscal year's work, show a considerable increase in our numbers over past years. Last year the total number of Scotch persons who sailed from the Clyde direct to Canada was 1,256, 520 by Liverpool steamers, and 180 from the Clyde via New York—a total of 1,956. This year the numbers by the same routes are as follows:—Glasgow to Canadian ports, 2,395; Liverpool to Canadian ports, 973; Glasgow via New York, 147; making a total of 3,515.

As in the past years I have paid frequent visits to the various passenger agencies placing before them the prosperity of Canada and requesting their support. I also met intending settlers at the various agencies, as also, when requested, at their homes. Quite a number were induced to go out through these personal interviews.

The correspondence, during the year, was far in excess of any previous experience, 5,801 letters were received and 7,111 sent out; as against 2,953 received and 3,512 sent out during 1901; also 750 personal callers were recorded at this office.

I attach a statement showing the counties in Scotland from which our correspondence was received, as also the number of emigrants who went out. The number who corresponded and sailed by Glasgow steamers, so far as we can trace, was 713. No record can be had as to the number who sailed by Liverpool from the north of England counties.

Your obedient servant,

H. M. MURRAY,

Principal Agent for Scotland.

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No. 7.

REPORT OF THOMAS DUNCAN.

17 VICTORIA STREET,

LONDON, September 8, 1902.

The Right Honourable

The High Commissioner for Canada,
London.

MY LORD,—I beg to submit the following report of my work in connection with emigration for the year ending June 30, 1902.

During the summer I spent my time in using every opportunity available for the purpose of spreading information amongst the people in regard to Canada, with a view to the encouragement of emigration, and I am pleased to be able to report that my work was fairly successful.

As in other years I attended the agricultural society shows of the district in which my work lay, where I distributed literature, gave information to parties calling at my tent to inspect the exhibit of grains, grasses and minerals which I carried. I also attended a large number of fairs and markets, distributing literature at many of them and taking every opportunity of entering into conversation with parties attending on the subject of my work.

During the winter months I delivered twenty-nine lectures in different parts of my district, with attendance varying from 50 to 300, mostly people of the agricultural class, at all of these meetings I distributed a good supply of literature.

Acting on your instructions I visited Canada in the spring, leaving Glasgow on March 21 in charge of a party of settlers, chiefly composed of young men, with a number of families, the greater part of which were booked for Winnipeg, where I conducted them. I remained in Winnipeg until the whole party was settled, the young men in situations and the families, several of which went on the land, were located. During my stay in Winnipeg I visited the emigration buildings daily, where some of the women and children were left, while their husbands were locating land. I look upon my work in this connection as the most valuable part of my services to the party under my charge.

It was at first understood that I was to take a trip west for the purpose of visiting the new settlements, so that I might be in a better position to give practical information concerning all parts of the country to parties on this side, but the time at my disposal was too short for this as I had to be back in Scotland by May 12 in order to make preparations for removal to London, where I am now located.

Your obedient servant,

THOS. DUNCAN.

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No. 8.

REPORT OF C. R. DEVLIN, COMMISSIONER OF EMIGRATION, IRELAND.

DUBLIN, July 9, 1902.

The Right Honourable

The High Commissioner for Canada,
London.

MY LORD.—I beg to submit a short report of work done during the year ended June 30, 1902, and to offer some suggestions.

My observation and the opportunities which I have of judging convince me that a very strong feeling exists in all parts of Ireland and animates what I might term the directing spirit of the body politic, national and religious that some effort must be made to retain the population and stem the tide of emigration. This feeling has taken possession of the most important elements—the clergy, the press, the politicians, those in trade and in every walk of life. Roman Catholic and Protestant alike view with alarm and consternation the people leaving in large numbers. Recently resolutions on the subject and suggesting remedies were adopted by the Roman Catholic bishops of Ireland. Later, powerfully written letters appeared in several papers, but still the people go.

I am glad to be able to report that in all of this movement against emigration there is no animosity displayed against Canada, and I think I cannot do better than quote from a paper on emigration, read by one of the ablest priests of Ireland, in the presence of the bishops and priests assembled at Maynooth a few days ago. Rev. Walter Macdonald, D.D., then said: 'If, however, as is not unlikely to happen he (the agricultural labourer) sets off without delay, I would advise him strongly to resist the attractions of higher wages and city life, and to go out to the great agricultural region in the centre or west of the United States or in Canada, and to continue the mode of life in which he has been trained so far. He is unfit for town life at home; he is more unfit for town life in America. There is plenty of work for agricultural labourers at good wages—from £36 to £40 a year, with board. * * * * And a hardy, thrifty man can acquire one (a farm) before many years—sooner in Canada than in the United States.

'This means that for some years our young friend will not earn, and above all will not spend, as much as those who settle down in cities, but then he will be making provision for a middle and old age of solid prosperity, so very different, alas! from the declining years of those whom higher wages or the pleasures of the town have enticed from the mode of life in which they have been brought up. What I have said applies to girls as well as to men, with an important modification. Our country girls are, as a rule, more thrifty than their brothers, and therefore better prepared to emigrate and settle down in the cities. They are much in demand as servants, and if an Irish girl is fairly good-looking, neat, and anxious to learn her business and push herself on, with good health she can in a few years make herself a comfortable position.'

Here you will find a recognition that no opposition is particularly shown Canada—rather otherwise. And indeed when, during the year, the press had occasion to speak of Canada, it was always in the highest and most eulogistic spirit. It was only recently that I sent to you extracts from various Irish papers dealing with the literature which we supply and commenting so favourably upon it.

Emigration there is from Ireland and emigration there will be for some years to come. Some few weeks ago I witnessed a spectacle such as is offered by no other

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country. The small farms of the west are unable to support the families living upon them. They cannot possibly support the landlord and at the same time the farmer and his family. What is the result? The women and the children are left to work the fields as best they can ; the men migrate to England and Scotland to get such work as can be obtained. They thus bring home money to pay the landlord and save their poor homes.

Crossing in a steamer from Dublin to Liverpool I saw fourteen hundred able bodied men having every appearance of poverty, it is true, but neat, orderly and sober, carrying their little bundles of clothes, and going to another country to get that work and living which the circumstances and conditions of their own could not provide. How many of these men would be glad to go to Canada ! would settle there and become prosperous citizens—but they have not the money to pay their way—much less the way of their families. I know what I would like to do, but I am powerless.

It has been said that I do not favour emigration to Canada. Sir, my efforts are all in that direction, and I think I have worked hard to make my mission a success. Our work is one of a delicate nature and must be carried out prudently and discreetly. An aggressive policy would defeat its own object, and might be the means of rendering the agents useless. I have heard it said that in other years and in other countries agents employed by the Canadian government and carrying out the same work as I am charged with, were requested by the governments of those other countries to moderate their zeal. I fancy that I understand my work here as well as anyone, having given to it careful study and earnest labour. It is said that I belong to political associations and that here I am playing the role of a politician. Five years ago I came to Ireland, and from that day to this I have taken no part in political meetings. I know few if any politicians. I belong to no political association or league, and have not belonged to one since I came to my office. My one great aim has been to promote the work confided to me by the Canadian government in the month of March, 1897, and as long as I hold my office, I will be governed by no political consideration. I regret the necessity of making these personal explanations, but, perhaps, they will have the effect of removing some prejudice which may exist against me and which I deplore as much as anybody.

During the past year we have had more going to Canada than during previous years. I take from the statistics of the British Board of Trade the following figures for the twelve months ended December 31 last:—1,347 Irish emigrants went to Canada compared with 962 who went the previous year. During the six months ended June 30, 1902, 712 Irish emigrants went to Canada, compared with 552 who went during the corresponding six months of the previous year.

So you see that we are making satisfactory progress ; but, sir, I attach no importance to those figures, and I claim that they do not give an adequate idea of the number going from Ireland to Canada. I have in my possession at this moment a manifest of a steamship which went in the month of May, and I find in that manifest classed as English emigrants, five Irish emigrants whom I sent to Alberta ; solid, substantial people with money. I saw the manifest of another steamer and I found upon it also, classed as English, several Irish emigrants who carried letters from me. You will ask how does this happen, and I must give an answer which I have often given before.

The steamers of the Elder-Dempster and Dominion lines call at no Irish ports, but sail direct to Canada from Liverpool. Our emigrants by these lines—and they are numerous—cross to Liverpool to embark ; and again many of our young emigrants and men of means take saloon and second cabin passages which they secure from English agents, the result being that they are classed not infrequently as English. The steamers of the Allan line call at Londonderry and thus embarking there, our emigrants by that line no doubt are classed as Irish ; but how many of our emigrants, carried by the Allan line, cross to Liverpool owing to the fact that they secure a lesser rate by boat to Liverpool than they do by train to Londonderry ?

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In July and August last year I sent about 150 domestic servants to different parts of Canada; their fares were in many instances advanced by the 'Women's National Immigration Society,' of Montreal, and in other cases by those requiring their services. I am happy to be able to report that success crowned this effort, and this summer I am receiving from Canada applications for domestic servants—those making such, sending prepaid tickets. Still we could send more than we receive application for.

I must observe that the work which we are prosecuting must be done in Ireland; must be done by one who understands the country and the people; must be done by one who has authority and power to fully discharge the duties of an agent. To be successful therefore, the agent must be in his office, and give as much of his time and attention to his office as possible; the agent must make exhibits of Canadian products at shows; he must visit fairs, he must do whatever is possible. He must give lectures on Canada. During the year I have made exhibits at shows; I have attended fairs; I have given a series of lectures in different parts of Ireland on Canada, and I have never refused to speak where I thought good could be done; I have written letters to the papers; I have kept them well provided with the blue-books of Canada; I have circulated to the libraries, to the hotels, to literary and agricultural societies Canadian newspapers and Canadian books of reference. As a result the number of letters and inquiries received has largely exceeded that of other years. The work here must be constant, persistent, unremitting. The moment we stop advertising or in any way slacken efforts, that moment we notice a falling off in the number of inquiries.

Up to this I had the good fortune of having to assist me Mr. John Webster, an able and efficient official. He has been transferred to London. Much as I have missed him since his departure, I will feel his loss even more during the winter when the lecture season opens. It is satisfactory, however, that Mr. O'Kelly has been left to continue good work in the north.

Canadian visitors, tourists and business men generally honour our office with a visit when passing through Dublin, and it is our constant aim to render them every service in our power. They have their letters forwarded here, call for Canadian papers, consult the business directories and other works of reference.

As I propose shortly to make a report to the Department of Trade and Commerce, it may not be necessary to dwell here upon matters connected with trade, to which we devote much time.

In Ireland there is a great demand for many Canadian products. One has only to examine bills of lading of steamships coming to Ireland from Canada to see the extent of the trade between the two countries. Our Canadian manufacturers and exporters would be well advised to cultivate the opportunities offered. Already we find the manufacturers of the United States represented in our cities and towns. It must not be forgotten that here everything must be bought and so little is made or manufactured.

During the year I sent out a trade index at the request of the Canadian Manufacturers' Association, and it was much appreciated.

Toward the end of July, 1901, we were informed that there existed in Manitoba and the North-west Territories an immediate and pressing demand for farm labourers. At once I issued circulars, inserted advertisements in the papers, sent out posters to the different parts of Ireland, and in one word, I did my very best to secure men. The result of this was that many went. The great difficulty, however, which we had to face was insufficiency of money on the part of those wishing to go. They were willing, nay anxious to go, but they could not pay their way. Day after day strong able-bodied men called at my office and every mail brought numerous letters; still we could do nothing. How often was the offer made to have the amount of passage deducted from the wages which would be earned, but in vain. I append a sample letter received on August 22 last:

'Having heard that a large number of farm servants are required in Canada at present, I would be most anxious to offer my services and would feel grateful if you

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would be good enough to instruct me on the following points :—(1) Will I be obliged to pay my train fare to the port of embarkation ? (2) Will my passage be free from Ireland to Canada ? (3) What would be the probable date of departure, for which information I would feel grateful.

‘I may add that I am a strong, healthy, active man, 22 years of age and well accustomed to farm work.’

An agent writing from the south of Ireland on August 19 declares :

‘As I am an emigration agent here for the principal lines sailing to America, several young men have applied to me stating their desire of emigrating to Canada. They are strapping, healthy young men of the labouring class, ages 19 to 22. They have no money to pay their fare, but if you could manage to send them under the “Free Emigration Act” they would enter into a bond or contract to repay their fares in instalments to your representatives in Canada. These men are strong, healthy and vigorous, in the prime of life, accustomed to agriculture work, for which they are paid but a nominal trifle. Please write giving full information. I would fill all documents required to fit them out. I hope also you will send a few pamphlets and maps, &c.’

A third writing on August 19 said :

‘Referring to our conversation a few days since *re* the 20,000 agricultural hands required for your country, it is a pity that your offer to those willing to go out—fair and generous as it is in some respects—defeats itself, after all. This country could, I am sure, supply you with six or eight thousand hands for the work, and probably for permanent settlement too, and of the very best and most desirable class. But of that number waiting and willing, I do not believe you could find one hundred with the necessary means for transport to Montreal, much less to Manitoba.’

These letters speak for themselves and are evidence that here in Ireland by some means which might be devised we could secure many valuable settlers for the west, and they establish beyond a shade of doubt that this is a good field for work; that with patience and perseverance, tact and energy even a larger measure of success must eventually be expected.

Your obedient servant,

C. R. DEVLIN.

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No. 9.

REPORT OF EDWARD O'KELLY, AGENT IN IRELAND.

13 QUEEN'S SQUARE,
BELFAST, August 12, 1902.The High Commissioner for Canada,
London.

MY LORD,—In presenting my annual report, I beg to state that the delay in doing so was caused, first by my trip to Canada, and secondly, on my return, by illness, which delayed the carrying out of instructions given me by the Deputy Minister of the Interior while in Ottawa. These instructions necessitated almost a complete round of my district before making up my report.

Emigration to Canada from this district in the past year has been fairly satisfactory, but you are aware of the impossibility of an agent, under present arrangements, knowing who, or exactly how many of his correspondents, scattered over a large district, actually leave for Canada.

Canada is splendidly advertised through notices in the newspapers of the country, and by the distribution of literature at the selling and buying fairs and markets. This distribution is keenly watched by the agent, who enters into conversation with as many as he possibly can during the time at his disposal, and he knows such distribution of literature and his spending the day amongst the people has good effect by the number of letters he has from that district within a few days, asking for more information. This is one of the methods pursued, but the best advertisement the Dominion ever had, or can have, is the exhibition of her agricultural and other products. The local fairs and shows are always crowded with just the best class of people for emigrants. The Canadian stand is invariably among the best equipped and most interesting there, and the intending emigrants flock to the stand to view the products, obtain information from the agent and also maps and pamphlets. The Irishman is secretive, and is mostly unwilling that his neighbours should know of his intention to emigrate; but he feels that at a show no one will remark his attention to a stand which every one visits.

If Mr. Balfour's Irish Land Bill passes in the coming session of parliament, it will enable hundreds of the very best class of settlers to leave Ireland; and from what I hear in my travels through the country, a very large percentage of them will settle in Canada instead of South Africa.

The valuing of the farms of the dispossessed farmers under the Belfast Water Act still drags along. The cases were adjourned to April from last fall, and when April came, were again adjourned till September. The solicitor for a large number of the farmers told me lately that he did not expect the matter would be settled for another year.

When the Deputy Minister of the Interior was in Belfast last February, he authorized me to open an office in this city and make Belfast the headquarters of the Ulster agency. I did so, and I feel sure the result will justify the small expenditure involved. I may here mention that for four years I have had use of a splendid office, with light, fuel and furniture from the Londonderry Harbour Commissioners, not only free of all expense, but accompanied by many kindly acts on the part of the Commissioners, and their courteous staff. I still use their office for my work in northern Ulster.

My correspondents for the first four months of this year numbered 1,125. I left for Canada on May 1, in charge of a large contingent of emigrants. I arrived at Quebec on the 11th of same month, and immediately left by special train for Winnipeg

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with many of those who had left Liverpool in my care. On steamer and train the greatest attention was paid to the comfort of the emigrants, not a single complaint of any sort having been made to me all through the journey. At Winnipeg we were welcomed by Mr. Smith, the Commissioner of Immigration, who, during the week I was in Winnipeg, imparted a vast amount of information that will prove highly useful to me in my work here. I could not but be astonished at the truly remarkable development that has taken place in Winnipeg since last I was there five years ago.

Leaving Winnipeg, I travelled westward, my furthest point being Cranbrook, British Columbia, and everywhere I observed the same indications of steady progress. The insight thus gained into 'Canada as she is' has already, since my return, proved of great value to me in my intercourse with intending settlers and others, and will doubtless continue to be so.

At Calgary, Red Deer, Edmonton, Strathcona, Macleod, Cranbrook and Marysville I called upon settlers who had left Ireland on my recommendation, and in every case I found them prosperous, happy and contented, and I have had letters from them in the same strain since my return. I need scarcely say all this has been highly satisfactory to myself.

In conclusion I consider that the prospects for the coming year are better than in any season since I became agent in Ulster.

Your obedient servant,

EDWARD O'KELLY.

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No. 10.

REPORT OF JOHN WEBSTER.

17 VICTORIA STREET,
LONDON, S.W., August 30, 1902.

The High Commissioner for Canada,
London.

MY LORD,—I have the honour to submit my report for the year ending June 30, 1902.

I have been actively engaged during the summer months in attending places where the farmers congregate, such as the weekly market, the monthly fair and the agricultural show. Each of these affords a good opportunity for distribution of literature and for discussing with the farmers the agricultural opportunities which should obtain for them in Canada. My long experience as a western farmer lends, of course, considerable weight to the information which I endeavour to convey.

At some important agricultural shows, notably the Royal Dublin Society, we endeavoured to make the best display possible (with such materials as we had at our disposal) of the agricultural and other varied resources of the Dominion.

It is my opinion (as stated in a former report), that when we make a display of the resources of the Dominion, these should certainly be a credit to the country. Far better no exhibit at all than an inadequate one which fails to do justice to the Dominion.

I am much pleased that Canada is so well represented at the Cork International Exhibition. I earnestly hope that the effect of the exhibit and the efforts put forth by the staff in charge may help in some degree to turn towards Canada the tide of emigration which since 1845 has been steadily flowing in the direction of the United States.

I have the greatest faith in the efficacy of lecturing as a means of bringing Canadian information before the people. During the past winter I spared no effort to deliver as many lectures as possible, sometimes having three or four engagements during the same week.

In addition to the work above represented, I have had a considerable amount of correspondence to attend to, this being especially so during the period when the advertisements were appearing in the newspapers. The importance of newspaper advertisements cannot, in my opinion, be too strongly emphasized.

Mr. Devlin being absent in Canada during January and February, I took control of the Dublin office for those months. With official duties and lecturing responsibilities I was kept fairly busy.

Acting on instructions, on March 13, I sailed for Canada in charge of a large party of settlers, most of whom were booked for Manitoba and the North-west. The 'personally conducted party' scheme was a useful experiment, and I think proved most satisfactory in its results. Many desirable settlers took advantage of these parties who otherwise would never have left the old country.

I was very glad indeed to take advantage of the opportunity of revisiting Canada, and seeing for myself the progress made during the five years I had been absent from the country.

I spent some days in Winnipeg and had ample opportunity of understanding the efficient manner in which the Commissioner there looks after the interests of immigrants. Not only did I visit various districts in Manitoba and the North-west but also

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British Columbia, where I had the opportunity of inspecting some of its important industries.

I received instructions from the department at Ottawa that on my return to Ireland from Canada I should make arrangements for departure to London, where I would become attached to the Immigration Department of the government office in that city.

I arrived in London on June 5, and since that date have been busily occupied attending to my work in the office.

Your obedient servant,

JOHN WEBSTER.

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No. 11.

REPORT OF D. TREAU DE CÆLI, AGENT IN BELGIUM.

ANTWERP, BELGIUM, June 30, 1902.

The High Commissioner for Canada,
London.

MY LORD,—In forwarding to you my annual report I am pleased to state that in the present year emigration has made a decided step on the continent, especially in Belgium, France, Holland, Germany and Switzerland; from every one of these countries I have numerous letters of inquiry and from each of them parties have gone to Canada after having communicated with this office.

It is difficult to have exact statistics as a certain number left here either as second-class or even first-class passengers, and more so as no direct line for steerage passengers exists, and it is not easy to ascertain whether parties leaving for Liverpool proceed to Canada or to the United States.

I am confident though that the official returns at the landing points will show an enormous increase over last year. The greatest number leaving for Canada after inquiries at this office were Belgians and French, also a certain number of Germans, Hollanders and from the Grand Duchy of Luxembourg.

Belgium is geographically so situated that it borders upon every one of the aforementioned countries. A German paper, *Die Fliegende Taube*, published in Belgium, has free access in Germany no matter what propaganda it contains, and I have by means of advertising in said paper obtained a great number of inquiries from Germany and the emigration of a few families.

In consequence of judicious advertising I have received at this office from January 1 to June 30 not less than 1,385 letters of inquiry, whereas the six previous months had only given me 200. I am pleased to state that a certain number left since, while I have every reason to believe that in the near future the results of the liberal advertisement and of my own work will be most satisfactory.

I have received from places where Belgian or French emigrants have settled most satisfactory information as to their progress.

I have proceeded with the general work of the office as in former years. In the course of the summer months I have attended agricultural shows and caused literature to be distributed, while in the fall I commenced a series of lectures illustrated with lantern views. Of these lectures I have given forty this winter. I make it a point, as much as possible, to meet the parties who intend emigrating, as it is the only way to find out if they belong to the class of people wanted in Canada.

I received during the year not less than 2,160 letters and sent 2,058 replies.

Your obedient servant,

D. TREAU DE CÆLI.

REPORTS OF AGENTS IN EASTERN CANADA.

No. 1.

REPORT OF THE IMMIGRATION AGENT AT ST. JOHN, N.B.

(J. V. LANTALUM.)

ST. JOHN, N.B., June 30, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit for your information a report of the arrivals of passengers at the port of St. John, N.B., for the year ending June 30, 1902.

Cabin.....	273
Steerage.....	8,531

Their destinations were:

Cabin—

Canada.....	268
United States.....	5

Steerage—

Canada.....	3,381
United States.....	5,150

and they were divided as to sexes as follows:—

Cabin, Canada—

Males.....	155
Females.....	88
Males, under 12.....	12
Females, under 12.....	13
	<hr/>
	268

Cabin, United States—

Males.....	5
Females.....	.....
Males, under 12.....	.....
Females, under 12.....	.....
	<hr/>
	5

Steerage, Canada—

Males.....	2,373
Females.....	455
Males, under 12.....	298
Females, under 12.....	255
	<hr/>
	3,381

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Steerage, United States—

Males.	3,470
Females	776
Males, under 12	461
Females, under 12.	443
	5,150

The steamships of the Eastern Steamship Line (International Division) plying between Boston, Portland, Eastport and St. John, landed 13,015 passengers, mostly tourists and returning Canadians.

The following statements are appended:—

Statement A—Monthly arrivals of cabin passengers for Canada.

Statement B—Monthly arrivals of cabin passengers for United States.

Statement C—Monthly arrivals of steerage passengers for Canada.

Statement D—Monthly arrivals of steerage passengers for United States.

Statement E—Showing sexes, occupations and destinations of the different nationalities remaining in Canada.

Statement F—Showing sexes, occupations and destinations of different nationalities going to the United States.

Your obedient servant,

JAMES V. LANTALUM,
Dominion Government Immigration Agent.

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STATEMENT A.—Showing monthly arrivals of Cabin Passengers for Canada.

Nationalities.	SEXES.				Months.	SEXES.				NATIONALITIES.						DESTINATIONS.								Totals.			
	Adults.		Children			Adults.		Children		Totals.	Tourists.	Returned Canadians.	English.	Irish.	Scotch.	German.	Totals.	Lower Provinces.	Quebec.	Ontario.	Manitoba.	North-west.	British Columbia.		Returned Canadians.	Tourists.	
	Males.	Females.	Males.	Females.		Males.	Females.																				
Tourists.....	68	35	9	7	1901.					17	17															17	17
Returned Canadians.....	49	25	1	1	July.....	13	4			17	17															12	12
English.....	35	27	6	4	August.....	8	4			12	12															8	8
Irish.....	1	1			September.....	6	2			4	4															4	4
Scotch.....	1	1			October.....	9	3			2	2															12	12
German.....	1				November.....	11	3			10	10															20	20
					December.....					17	1															9	9
					1902.																						
					January.....	5				5	5															5	5
					February.....	18	6			24	7															24	24
					March.....	33	12			1	1															17	17
					April.....	40	35			3	3															81	81
					May.....																						
					June.....	12	19			4	7															42	42
Totals.....	155	88	12	13	Totals.....	155	88	12	13	268	115	76	72	1	3	1	268	25	24	4	11	1	12	76	115	268	268

JAMES V. LANTALUM,
Dominion Government Immigration Agent.

ST. JOHN, N.B., June 30, 1902.

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STATEMENT B.—Showing Monthly arrivals of Cabin Passengers for United States.

MONTHS.	TOURISTS.					RUSSIAN.					ENGLISH.				
	Adults.		Children			Adults.		Children			Adults.		Children		
	Male.	Female.	Male.	Female.	Totals.	Male.	Female.	Male.	Female.	Totals.	Male.	Female.	Male.	Female.	Totals.
1901.															
July															
August															
September	1				1										
October															
November															
December						1				1					
1902.															
January											1				1
February	2				2										
March															
April															
May															
June															
Totals	3				3	1				1	1				1

JAMES V. LANTALUM,
Dominion Government Immigration Agent.

ST. JOHN, N. B., June 30, 1902.

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STATEMENT C.—Showing Nationalities of Monthly Arrivals for Canada.

Nationalities.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.
Welsh.....								2		2		
English.....	20				13	99	138	134	290	176		
Irish.....						5	16	1	55	7		
Scotch.....	3					104	18	3	18	5		
French.....						3	2	2	25	6		
Italians.....						31	25	40	199	176		
Austrians.....						15	19	7	21	120		
Returned Canadians.....			2			14	19	60	59	38		
Tourists.....		2	2	14	11		3		18	2		13
Finnish.....						24	34	25	89	5		
German.....						9	12	21	40	113		
Polish.....						4	10	3	9	5		
Roumanian.....						24	11	1	21	8		
Russia.....						25	74	40	107	168		
Swiss.....						1			2			
Syrian.....						9	16	14		2		
Norwegian.....						1		2	28	8		
United States citizens.....						3						
Arabian.....							5	2	1			
Iceland.....							1					
Assyrian.....							5					
Turkey.....								1				
Greek.....									8			
Dutch.....										1		
Chinese.....												1
Galician.....						2	7	6	10	4		
Swede.....						20	5	7	37	6		
Belgian.....							3	2	20	15		
Hungary.....							1	4	11	161		
Dane.....							2		2	2		
Armenian.....								1		3		
Totals.....	23	2	4	14	24	393	426	378	1,070	1,033	14

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STATEMENT C.—Showing Occupations and Destinations of Monthly Arrivals for Canada.

Months.	OCCUPATIONS.						DESTINATIONS.									
	Agriculturists.	Labourers.	Mechanics.	Clerks.	Miners.	Domestics.	Not classified.	Totals.	Lower Provinces.	Quebec.	Ontario.	Manitola.	N.W. Territories.	British Columbia.	Returned Canadians.	Tourists.
1901.																
July							23	23	23							23
August							2	2								2
September							4	4							2	4
October							14	14								14
November	2	1	5	2		1	13	24	3	3	2	2	2	1	11	24
December	101	78	37	34	5	14	124	393	46	76	77	134	11	35	14	393
1902.																
January	42	127	47	18	3	10	179	426	57	84	145	100	13	5	19	426
February	42	127	43	13	2	11	140	378	52	74	80	70	14	27	60	378
March	142	444	114	32	8	6	324	1,070	118	253	191	286	79	43	59	1,070
April	80	450	74	20	1		408	1,033	73	114	193	386	213	14	38	1,033
May																
June							14	14								14
	409	1,227	320	119	19	42	1,245	3,381	372	604	688	978	332	125	192	3,381

JAMES V. LANTALUM,
Dominion Government Immigration Agent.

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STATEMENT D.—Showing Nationalities of Monthly Arrivals for United States.

Nationalities.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.
Canadian.....									1			
English.....						38	23	22	14	7		
Irish.....						6	3		3			
Scotch.....								1	21			
French.....									3			
Italian.....						63	15	43	201	25		
Austrian.....						71	31	55	55	37		
Polish.....						20	17	9	7	5		
Armenian.....						3	19	5	3	5		
Belgian.....						6		4	2	1		
Dutch.....						1	4	3				
Finnish.....						88	128	309	42	39		
German.....						80	96	24	57	19		
Galician.....						7	1					
Hungary.....						25	5	11	7	36		
Danish.....						25	29	14	64	24		
Norway.....						23	27	14	47	40		
Turkey.....						2	1					
Courland.....						7						
Greek.....							5		1	28		
Hebrew.....							4					
Spanish.....							4	5		1		
Bohemian.....								1		1		
Servian.....								2				
Swiss.....									2			
Bavarian.....									1			
Roumanian.....						35	17	10	51	3		
Russian.....						710	354	508	790	247		
Syrian.....						7		7				
Swede.....						61	46	19	56	79		
United States citizens..						10	16	11	17	2		
Totals.....						1,288	836	977	1,450	599		

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STATEMENT D.—Showing Occupations of Monthly Arrivals for United States.

Months.	Agriculturists.	Labourers.	Mechanics.	Clerks.	Miners.	Domestics.	Not classed.	Total.
1901.								
July..								
August..								
September..								
October..								
November..								
December..	49	274	292	36	3	31	603	1,288
1902.								
January	26	212	290	37	4	25	242	836
February..	96	252	366	53		19	191	977
March....	76	415	550	56	3	10	340	1,450
April....	44	189	120	20	4	11	211	599
May....								
June....								
Totals ..	291	1,342	1,618	202	14	96	1,587	5,150

JAMES V. LANTALUM,
Dominion Government Immigration Agent.

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STATEMENT E.—Showing Sexes, Occupations and Destinations of the Different Nationalities Remaining in Canada.

Nationalities.	SEXES.				OCCUPATIONS.								DESTINATIONS.							Totals.				
	Adults.		Children.		Totals.	Agricultur-ists.	Labourers.	Mechanics.	Clerks.	Miners.	Domestics.	Not class-ified.	Totals.	Lower Pro-vinces.	Quebec.	Ontario.	Manitoba.	North-west Territories.	British Columbia.		Yukon.	Returned Canadians.	Tourists.	
	Males.	Females.	Males.	Females.																				
English.....	567	153	93	57	870	163	156	141	80	11	24	245	870	170	154	175	231	72	67	1	1	192	89	3,381
Scottish.....	126	13	8	2	151	99	11	7	9	3	3	25	151	19	6	15	105	3	11	..	..	65	..	151
Tourists.....	56	6	1	2	65	..	..	..	..	..	..	65	65	..	..	..	..	..	..	..	..	..	..	65
Returned Canadians.....	164	14	6	8	192	..	..	..	..	..	..	192	192	..	..	..	..	..	..	..	..	..	..	192
Austrian.....	131	19	17	15	182	8	90	20	7	2	1	164	182	5	37	44	72	18	6	..	..	..	..	182
French.....	26	7	5	3	38	5	9	3	5	..	..	16	38	4	13	13	16	3	3	..	..	..	..	38
Finnish.....	172	5	..	..	177	12	149	11	..	..	..	14	177	4	45	83	43	1	..	..	..	..	..	177
German.....	95	41	24	35	195	8	37	23	4	..	..	121	195	11	17	10	122	14	1	..	..	..	..	195
Galician.....	21	5	2	1	29	12	8	1	..	..	..	6	29	2	1	19	25	8	5	..	..	..	..	29
Irish.....	47	22	10	5	84	28	9	6	5	1	1	34	84	5	126	255	7	2	6	..	..	..	..	84
Italian.....	456	10	2	3	471	1	442	9	1	1	..	4	471	75	126	255	7	2	6	..	..	..	..	471
Polish.....	26	5	..	..	31	1	17	6	2	..	..	1	31	2	5	9	15	..	..	..	..	..	..	31
Rumanian.....	28	14	11	12	65	..	10	13	5	..	..	1	65	2	53	7	3	..	..	..	..	..	..	65
Russian.....	298	76	65	45	414	21	139	60	1	..	..	192	414	52	83	58	29	17	8	..	..	..	..	414
Serbian.....	8	..	..	..	8	2	1	..	..	..	..	..	8	3	..	..	..	..	..	..	..	..	..	8
Syrian.....	97	6	7	1	111	4	14	3	..	..	..	16	111	41	25	16	..	..	..	..	..	..	..	111
Swedish.....	49	11	9	6	75	15	29	6	..	..	..	20	75	2	9	4	42	18	8	..	..	..	..	75
Norwegian.....	32	7	..	..	39	18	14	9	..	..	..	5	39	2	3	1	27	..	..	..	..	..	..	39
United States Citizens.....	2	..	1	..	3	..	1	1	..	..	..	1	3	2	1	..	..	..	..	..	..	..	..	3
Icelandic.....	1	1	..	..	2	..	1	1	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	2
Danish.....	5	1	..	..	6	1	3	1	..	..	..	1	6	1	..	..	1	..	..	..	..	..	..	6
Belgian.....	33	4	..	3	40	3	23	3	1	3	..	8	40	2	5	3	30	2	5	..	..	..	..	40
Arabian.....	8	..	..	..	8	..	7	..	..	..	..	..	8	2	..	..	1	..	..	..	..	..	..	8
Hungarian.....	49	35	38	55	177	3	44	2	1	1	..	128	177	4	1	1	4	171	1	..	..	..	..	177
Welsh.....	4	..	..	..	4	..	2	2	..	..	..	3	4	1	2	..	..	..	..	..	..	..	..	4
Assyrian.....	2	1	2	..	5	2	2	..	..	..	..	..	5	4	4	..	..	..	..	..	..	..	..	5
Armenian.....	4	..	..	..	4	..	4	..	..	..	..	..	4	1	4	..	..	..	..	..	..	..	..	4
Dutch.....	1	..	..	..	1	..	..	..	..	..	..	..	1	1	..	3	..	..	..	..	..	..	..	1
Greek.....	8	..	..	..	8	..	6	..	1	..	..	1	8	1	5	..	..	..	..	..	..	..	..	8
Chinese.....	1	..	..	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1
Turk.....	1	..	..	..	1	..	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1
Totals.....	2,573	455	298	255	3,381	469	1,227	320	119	19	42	1,245	3,381	372	604	688	978	332	125	1	192	89	..	3,381

JAMES V. LANTALUM,
Dominion Government Immigration Agent.

St. John, N.B., June 30, 1902.

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STATEMENT F.—Showing Sexes and Occupations of the different Nationalities destined for the United States.

NATIONALITIES.	SEXES.				OCCUPATIONS.								Totals.
	Adults.		Children.		Totals.	Agriculturists.	Labourers.	Mechanics.	Clerks.	Miners.	Domestics.	Not classified.	
	Males.	Females.	Males.	Females.									
Russian	1,658	396	278	277	2,609	29	274	1,252	116	.....	4	934	2,609
Belgian	10	2	1	5	18	6	2	1	.....	1	.....	8	18
German	118	63	57	38	276	17	33	52	10	5	2	157	276
Austrian	187	33	18	11	249	9	64	99	10	1	13	53	249
Roumanian	48	33	19	16	116	3	6	33	7	.....	2	65	116
Danish	110	18	10	9	147	12	53	37	5	2	4	34	147
Hungarian	52	23	4	5	84	7	34	12	2	.....	3	26	84
Polish	22	12	11	13	58	.....	12	10	.....	.....	.....	36	58
Italian	326	10	7	4	347	9	292	6	4	1	.....	35	347
Finnish	428	52	12	14	506	107	321	5	5	.....	31	37	506
United States citizens	42	7	.....	7	56	8	7	16	8	.....	.....	17	56
Swedish	184	55	15	7	261	35	113	28	10	.....	25	50	261
Norwegian	107	25	7	12	151	23	63	12	4	.....	6	43	151
English	55	20	14	15	104	5	13	27	5	3	.....	51	104
Courlander	2	5	.....	.....	7	.....	.....	.....	2	.....	1	4	7
Irish	6	4	.....	2	12	4	2	.....	.....	.....	2	4	12
Galician	2	3	1	2	8	.....	.....	2	.....	.....	2	4	8
Syrian	13	1	.....	.....	14	7	.....	1	5	.....	.....	1	14
Turk	3	.....	.....	.....	3	.....	1	2	.....	.....	.....	.....	3
Armenian	32	2	1	.....	35	1	17	7	6	.....	.....	4	35
Dutch	5	2	1	.....	8	.....	.....	3	2	.....	1	2	8
Spanish	5	3	.....	2	10	.....	4	1	.....	.....	.....	5	10
Hebrew	1	1	1	1	4	.....	.....	1	.....	.....	.....	3	4
Greek	28	1	4	1	34	.....	28	.....	.....	.....	.....	6	34
Scotch	16	4	.....	2	22	8	.....	7	.....	1	.....	6	22
Bohemian	2	.....	.....	.....	2	.....	.....	1	.....	.....	.....	1	2
French	3	.....	.....	.....	3	.....	.....	2	1	.....	.....	3	3
Servian	1	1	.....	2	2	.....	.....	1	.....	.....	.....	1	2
Canadian	1	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	1
Swiss	2	.....	.....	.....	2	.....	2	.....	.....	.....	.....	.....	2
Bavarian	1	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	1
Total	3,470	776	461	443	5,150	291	1,342	1,618	292	14	96	1,587	5,150

JAMES V. LANTALUM,

Dominion Government Immigration Agent.

ST. JOHN, N.B., June 30, 1902.

SESSIONAL PAPER No. 25

No. 2.

REPORT OF THE HALIFAX AGENT.

(F. W. ANNAND.)

HALIFAX, N.S., July 1, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit herewith a report of the arrival of passengers at this agency for the year, beginning July 1, 1901, and ending June 30, 1902.

The total arrivals were :

Cabin	6,296
Steerage.....	17,945
Total.....	24,241

The general destinations of these were :

Cabin—

Canada.....	6,171
United States..	125

Steerage—

Canada.....	12,739
United States.....	5,206

while they were divided as to sexes as follows :—

Cabin, Canada—

Males.....	3,020
Females.....	2,841
Children.....	310

Cabin, United States—

Males.....	76
Females.....	43
Children.....	6

Steerage, Canada—

Males.....	7,370
Females.....	2,372
Children.....	2,997

Steerage, United States—

Males.....	3,959
Females.....	790
Children.....	457

This shows a total increase over the arrivals of the previous year of 7,528, or an increase in cabin of 921, and in the steerage of 6,607.

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The increase in the steerage arrivals was divided as follows :—

Canada.	4,142
United States.	2,465

The increase in the arrivals destined for the United States is almost wholly accounted for in the landing of passengers from two steamers of the North German Lloyd Line in March, which should have gone to New York but came to this port disabled.

The increase in those destined to points in Canada was of an apparently healthy character and shows a marked improvement over previous years.

It will be seen by reference to statement 'I' that there has been a considerable increase in the arrivals of nearly every nationality, the exceptions being French and Belgians, Hebrews and Italians. A very substantial increase in the arrivals from Great Britain will be noted as well as in those from Germany, Scandinavia, Russia, and Galicia.

The trend westward during the year has been very noticeable, nearly all of the increase shown being credited to the western provinces.

Ontario has gained over the previous year ; the increase in those destined for this province being larger from Scandinavia and Finland.

The falling off in those destined for the lower provinces and Quebec is more than accounted for in the non-arrival of such large numbers of Italians as in the previous year.

On the whole, as a class, I think I can safely say that the arrivals for the period being reported on have been above the average of any previous year, and with but very few exceptions should prove advantageous to the country.

A larger amount of sickness than usual has been experienced among the passengers, but in only one case were the results fatal at this agency, that of a child which died during the landing of passengers, the parents being Russian Germans, destined for the west.

A number of deaths at sea were reported, all excepting one being children. The exception mentioned was a Galician, who was buried at sea ; his wife and children having relations in the west proceeding to their destination.

Two parties of children arrived at this agency during the year—one under Rev. Mr. Wallace, for Belleville, the other, Mr. Middlemore's, for the maritime provinces.

On the ss. *Parisian* arriving in March was a young man from Ireland, destined for Winnipeg, who, on being examined by the quarantine officers, was declared to be of unsound mind, and I at once took the necessary steps for his deportation.

I was also successful in the month of April in securing the return of a girl who had shown an unwise moral tendency.

In this connection I would mention the fact that considerable difficulty has been experienced with girls sent out to this country by parties on the other side who have hoped in the change of locality to better their condition in more ways than one. The experiment has met with very poor success, and I have reasons to believe that steps which I have taken, will prevent a further occurrence.

We have met and received passengers from 264 steamers during the year, an increase of 15 over the previous year.

Nearly half of these steamers have arrived during the night and have thus added to a large extent to the work of the agency.

Our operations during the past season have been attended with great inconvenience, owing to the fact that a large part of our already crowded space has had to be placed at the disposal of the transportation people for passengers destined for the United States.

It is very urgent that this be remedied before the winter service begins.

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I would beg to draw attention to the fact of the growing importance of this agency as an 'all-the-year' port of entry, for, owing to the service being carried on by the Allan, Furness and Hamburg American lines during the summer months it has long ceased to be but a winter port, as for many years considered.

The work at this agency during the past year has been the heaviest in its history, and the members of the staff have been taxed to the fullest extent possible.

The supply of pamphlets and other reading matter bearing on western Canada furnished this agency, has been placed as far as possible to the best advantage, being distributed largely among the desirable classes passing into the United States.

The usual attention to the best interests of the immigrants has been given, and the greatest possible satisfaction prevailed among the newly arrived as to their first reception on Canadian soil.

The usual statements are herewith attached as follows :—

Statement 'A.'—Monthly arrivals of cabin passengers for Canada.

Statement 'B.'—Monthly arrivals of cabin passengers for United States.

Statement 'C.'—Monthly arrivals of steerage passengers for Canada.

Statement 'D.'—Monthly arrivals of steerage passengers for United States.

Statement 'E.'—Sexes, occupations and destinations of nationalities for Canada.

Statement 'F.'—Sexes and occupations of nationalities for United States.

Statement 'G.'—Sexes, nationalities and destinations of steerage by different lines.

Statement 'H.'—Comparative statement of monthly arrivals, 1900-01 and 1901-02.

Statement 'I.'—Comparative statement of nationalities.

Statement 'J.'—Showing arrivals according to ports of departure.

Your obedient servant,

F. W. ANNAND,
Dominion Government Immigration Agent.

2-3 EDWARD VII., A. 1903

STATEMENT A.—Showing Monthly Arrivals of Cabin

Nationalities.	SEXES.					Months.	SEXES.				
	Adults.		Children		Totals.		Adults.		Children		
	Males.	Females.	Males.	Females.			Males.	Females.	Males.	Females.	
											Totals.
					1901.						
English.....	413	259	35	52	759	July.....	561	759	41	35	1,396
Irish.....	7	2	1	1	11	August.....	514	537	7	15	1,073
Scotch.....	18	7	1	1	27	September.....	377	382	4	8	771
Norwegian.....	7	.....	.....	.....	7	October.....	185	170	13	13	381
Swedish.....	2	.....	.....	.....	2	November.....	211	97	14	18	340
Danish.....	1	1	.....	.....	2	December.....	161	107	11	7	286
German.....	3	3	.....	.....	6						
French.....	20	6	2	2	30	1902.					
Russian.....	2	1	2	.....	5	1 January.....	147	56	4	5	212
Swiss.....	.....	1	.....	.....	1	2 February.....	96	45	7	7	155
Italian.....	1	.....	.....	.....	1	3 March.....	250	104	10	10	374
Hebrew.....	1	.....	.....	.....	1	4 April.....	194	100	13	11	318
United States citizens.....	5	4	.....	.....	9	5 May.....	99	96	8	5	208
Returned Canadians.....	1,075	957	56	39	2,127	6 June.....	225	388	19	25	657
Tourists.....	1,465	1,600	54	64	3,183						
Totals.....	3,020	2,841	151	159	6,171	Totals.....	3,020	2,841	151	159	6,171

HALIFAX, N.S., June 30, 1902.

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Passengers for Canada and Sexes of Nationalities.

NATIONALITIES.													DESTINATIONS.												
English.	Irish.	Scotch.	Norwegian.	Swedish.	Danish.	German.	French.	Russian.	Swiss.	Italian.	Hebrew.	United States citizens.	Returned Canadians.	Tourists.	Totals.	Lower Provinces.	Quebec.	Ontario.	Manitoba.	North-west Territories.	British Columbia.	Yukon.	Returned Canadians.	Tourists.	Totals.
78	4	4					1					6	352	955	1,396	83					6		352	955	1,396
48	1	4											134	886	1,073	45	4	2	2				134	886	1,073
46		12					6		1				149	567	771	51	1	3					149	567	771
25		12					7						239	108	381	33		1					239	108	381
85				1		1							238	15	340	84	1	12					238	15	340
92					1								177	16	286	84	1	3		1	4		177	16	286
59	5	2				3	1						106	36	212	67			1		2		106	36	212
58		5		1			4						65	22	155	43	6	6	1	2	8	2	65	22	155
138	4	5					6					1	185	35	374	115	7	7	8	5	12		185	35	374
101	1	3	7		2	1	1	4				2	156	40	318	85	10	13	4	5	5		156	40	318
11													161	36	208	10					1		161	36	208
18							5			1		1	165	467	657	19	6						165	467	657
759	11	27	7	2	2	6	30	5	1	1	1	9	2,127	3,183	6,171	719	36	37	16	13	38	2	2,127	3,183	6,171

F. W. ANNAND,
Dominion Government Immigration Agent.

2-3 EDWARD VII., A. 1903

STATEMENT B.—Showing Monthly Arrivals of Cabin Passengers

Months.	ENGLISH.					IRISH.					UNITED STATES CITIZENS.					RUSSIAN.				
	Adults		Children			Adults		Children			Adults		Children			Adults		Children		
	Males.	Females.	Males.	Females.	Totals.	Males.	Females.	Males.	Females.	Totals.	Males.	Females.	Males.	Females.	Totals.	Males.	Females.	Males.	Females.	Totals.
1901.																				
July.....											1				1					
August.....	3	3	1		7						1	1			1					
September.....	5	1	1	1	8						1	2			3					
October.....	3	1			4		1			1	2	1			3					
November.....											1	1			2					
December.....																				
1902.																				
January.....	2	1			3						1				1					
February.....																				
March.....	4	2	1		7						17	7	1	1	26	3	3			6
April.....	1	2			3															
May.....	5	3			8						3	3			6					
June.....	1	1			2															
Totals.....	24	14	3	1	42		1			1	26	15	1	1	43	3	3			6

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for the United States and Sexes of Nationalities.

ARMENIA.					FRENCH.					GERMAN.					NORWAY.					AUSTRIA.				
Adults Children					Adults Children					Adults Children					Adults Children					Adults Children				
Males.	Females.	Males.	Females.	Totals.	Males.	Females.	Males.	Females.	Totals.	Males.	Females.	Males.	Females.	Totals.	Males.	Females.	Males.	Females.	Totals.	Males.	Females.	Males.	Females.	Totals.
1				1																				

F. W. ANNAND,
Dominion Government Immigration Agent.

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STATEMENT C.
Showing Monthly Arrivals of Steerage Passengers for Canada.

Months.	SEXES.				NATIONALITIES.																									
	Adults.		Children.		Totals.	English.	Welsh.	Irish.	Scottish.	German.	Dutch.	French.	Belgian.	Norwegian.	Swedish.	Danish.	Icelandic.	Russian.	Finnish.	Polish.	Hebrew.	Rumanian.	Moldavian.	Italian.	Syrian.	Galician.	Austrian.	Hungarian.	(Greek.	Croatian.
	Males.	Females.	Males.	Females.																										
1901.																														
July	157	99	46	37	339	121	5	18	9	1	1	1	1	1	1	1	1	1	5	4	47					129		1		
August	65	29	14	8	116	71	1	3	18										1											
September	52	45	11	17	125	92	3	9	3																					
October	86	38	8	13	145	76	1	11	11	43									2	3						1		1		
November	272	142	55	37	526	163	5	11	11	36	22	6	4	4	8	4	2	52	49	5	34			10	59	11	7	2		
December	147	48	22	12	229	75	6	6	6	6	1	3						16	19	6	2				55		4			
1902.																														
January	162	26	8	6	142	73	1	3	15	1	1	1	1	1	3	1	61	125	2	3				2						
February	414	96	32	18	560	261	1	15	28	2	4				30	27	4	185	121	17	24					15				
March	1,331	264	122	121	1,838	1,163	2	92	65	5	14	20	49	6	167	24	4	141	71	1	6				6		7			
April	2,708	584	441	379	4,172	857	41	63	327	31	6	8	512	167	512	2	2	76	17	25	3	2	278	164	88	1,231	1	167	50	54
May	981	451	337	324	2,073	142	3	5	16	16			4	2	2			4	17	25	3	51	1	39	124	1,331	7	124		
June	1,015	359	479	430	2,474	174		7	7	18	10	1						21	19	6	26	3		5	306	1,728	72			
Totals	7,370	2,372	1,575	1,422	12,739	3,208	55	263	522	159	241	35	570	157	61	11	557	424	70	115	103	279	227	611	4,366	27	270	55	54	

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STATEMENT C.—Showing Monthly Arrivals of Steerage Passengers for Canada.

Months.	NATIONALITIES.						OCCUPATIONS.						DESTINATIONS.						Totals.								
	Bulgarian.	Arabian.	Malay.	Swiss.	Chinese.	U. S. Citizens.	Returned Canadians.	Tourists.	Totals.	Agriculturists.	Labourers.	Mechanics.	Clerks and Traders.	Miners.	Female Servants.	Not classed.	Totals.	Lower Provinces.		Quebec.	Ontario.	Manitoba.	North-west Territories.	British Columbia.	Yukon.	Returned Canadians.	Tourists.
1901.																											
July	6					1	10	8	389	85	37	15	9	1	2	190	330	132	3	2	60	120	4		810	339	
August					1		11	9	116		22	15	8	3	9	59	116	92	1	1	2				11	116	
September							125	15	125		32	4	7	13	69	125	99	49	2	5			1		711	125	
October							3	1	145		78	4	2	1	7	53	145	136		4					3	145	
November			5				13	6	526	37	177	18	20	7	39	228	526	167	67	120	107	19	27		13	526	
December						1	22		229	13	91	11	15	2	16	81	229	102	23	50	23	4	5		22	229	
1902.																											
January							20	7	142	13	33	17	9	9	11	50	142	38	23	28	17	7	2		20	142	
February						1	1	1	560	73	251	49	27	12	34	114	560	76	70	189	158	30	35		1	560	
March							1	1	1,838	469	668	123	120	20	59	490	1,838	126	121	348	916	202	70	1	35	1,838	
April						2	1212	1,044	4,172	1,044	939	630	98	26	62	1,333	4,172	223	425	942	1,695	779	80	4	12	4,172	
May							2419	2419	2,073	590	271	16	54	7	6	1,120	2,073	163	79	46	1,173	568	11		24	2,073	
June						11	14		2,474	663	278	11	120		7	1,455	2,474	231	384	47	1,405	792	1		14	2,474	
Totals	1	3	5	1	27	7	170	95	12,739	2,867	2,837	913	489	88	245	5,290	12,739	1,585	1,198	1,782	5,156	2,511	257	5	170	12,739	

F. W. ANNAND,
Dominion Government Immigration Agent.

HALIFAX, N. S., June 30, 1902.

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STATEMENT D.—Showing monthly arrivals of

Months.	SEXES.				NATIONALITIES.														
	Adults.		Children.		Totals.	English.	Irish.	Scotch.	German.	French.	Norwegian.	Swedish.	Danish.	Russians.	Finnish.	Polish.	Hebrews.	Roumanians.	Italians.
	Males.	Females.	Males.	Females.															
1901.																			
July	24	10	2	4	40	25	4			2									
August	15	8	4	2	29	22													
September.	19	25	4	2	50	37													
October.	23	13		3	39	26										10			
November...	221	112	43	49	425	54	4		11		44	55	15	45	101	2	37	13	26
December.	71	25	12	12	120	12	4				8	14	8	24	35	3	7		
1902.																			
January.	2				2	1	1												
February	166	28	6	7	207	12	1		1		10	2	1	25	148	1			
March.	2,571	361	72	73	3,077	50	6	21	63		174	97	41	170	344		2		
April.	502	89	35	20	647	56		3	29		139	207	21	20	97		2	7	21
May	183	67	21	19	290	55			15			7	4	62	124				
June	162	52	31	35	280	20			20					123					8
Totals...	3,959	790	231	226	5,206	370	19	25	139	2	375	382	90	469	859	5	49	20	55

HALIFAX, N.S., June 30, 1902.

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Steorage Passengers for the United States.

NATIONALITIES.													OCCUPATIONS.									
Galicians.	Austrians.	Hungarians.	Slavaks.	Bohemians.	Moravians.	Croatians.	Greeks.	Armenians.	Syrians.	Portuguese.	Belgians.	U. S. Citizens.	Totals.	Agriculturists.	Labourers.	Mechanics.	Clerks and Traders.	Miners.	Female Servants.	Not Classed.	Totals.	
								2				7	40	3	14	6	1		2	14	40	
								2				5	29		9	4	2		4	10	29	
								6				7	50	1	10	2	6		13	18	50	
										2		1	39	1	22				7	9	39	
	2	3									2	11	425	12	190	8	6	5	37	167	425	
												5	120	7	54	5	5		11	38	120	
													2		2						2	
											6		207		152	12	2		15	26	207	
113	1,125	471	4	7	6	346	1			17	19	3,077	905	1,503	65	21	77	49	457	3,077		
	13	2					20			2	8	647	25	463	6	2	6	35	110	647		
	13	7									3	290	23	140	9	10	1	21	86	290		
	41						10		48		10	280	24	119	17	2		7	111	280		
113	1,194	483	4	7	6	346	31	10	48	2	27	76	5,206	1,001	2,678	134	57	89	201	1,046	5,206	

F. W. ANNAND,

Dominion Government Immigration Agent.

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STATEMENT E.—Showing Sexes, Occupations and Destinations of the different Nationalities remaining in Canada.

Nationalities.	SEXES.				OCCUPATIONS.								DESTINATIONS.										
	Adults.		Children.		Totals.	Agriculturists.	Labourers.	Mechanics.	Clerks and Traders.	Miners.	Female Servants.	Not Classed.	Totals.	Lower Provinces.	Quebec.	Ontario.	Manitoba.	North-west Territories.	British Columbia.	Yukon.	Returned Canadians.	Tourists.	Totals.
	Males.	Females.	Males.	Females.																			
English..	2,141	561	288	218	3,208	507	1,017	322	238	57	137	930	3,208	1,044	225	602	926	265	145	1	1	1	3,208
Welsh..	32	7	9	7	55	19	8	3	3	2	1	22	55	2	1	1	45	6	1	1	1	1	55
Scottish	355	85	52	30	522	107	119	76	48	5	31	136	522	121	51	69	295	49	27	1	1	1	522
Irish..	150	34	13	6	203	38	79	10	22	1	15	38	203	26	1	10	69	64	22	7	1	1	203
Norwegian.	540	13	7	10	570	47	81	409	1	2	3	27	570	1	1	471	83	8	6	1	1	1	570
Swedish	116	19	11	11	157	49	37	26	1	4	9	32	157	10	1	1	42	70	26	4	4	1	157
Danish	46	12	3	8	61	19	8	18	1	1	9	6	61	8	4	21	27	16	1	1	1	1	61
Icelanders	7	2	1	1	10	1	6	3	1	1	1	3	10	1	1	1	10	1	1	1	1	1	10
Russian.	176	148	124	109	557	146	26	3	3	1	10	371	557	6	10	6	335	11	10	13	1	1	557
Finnish.	363	39	13	9	424	8	349	3	3	3	26	41	424	16	22	352	11	10	13	1	1	1	424
Polish.	40	9	10	11	70	5	30	5	1	1	1	29	70	13	14	3	39	2	1	1	1	1	70
French	38	13	5	5	61	9	22	1	4	2	2	1	61	27	13	13	1	10	9	1	1	1	61
Belgian	19	6	4	4	35	14	4	1	1	1	1	15	35	5	5	4	21	14	8	1	1	1	35
German	107	25	21	6	159	16	74	11	6	7	7	45	159	57	15	28	37	14	8	1	1	1	159
Dutch.	2	2	1	1	6	2	2	1	1	1	1	9	6	2	1	2	2	1	1	1	1	1	6
Austrian	18	5	1	3	27	8	4	1	1	4	1	9	27	5	1	1	9	10	2	1	1	1	27
Hungarian	151	52	35	32	270	95	55	1	1	7	1	118	270	22	15	11	71	140	11	1	1	1	270
Galician.	1,969	1,055	799	830	4,593	1,651	259	9	3	7	14	2,679	4,593	16	4	40	2,916	1,613	4	8	1	1	4,593
Slovak	27	4	2	2	35	9	12	1	1	1	1	6	35	2	5	6	2	9	6	1	1	1	35
Romanian	21	4	13	14	103	85	18	1	1	1	1	49	103	1	3	3	54	46	1	1	1	1	103
Moldavian	76	79	55	69	279	76	54	1	1	1	1	203	279	34	36	18	1	278	1	1	1	1	279
Croatian	54	1	1	1	57	1	54	1	1	1	1	57	57	1	1	1	54	1	1	1	1	1	57
Bulgarian	1	1	1	1	4	1	1	1	1	1	1	4	4	1	1	1	1	1	1	1	1	1	4
Syrian	418	95	79	19	611	1	273	145	1	1	1	183	611	129	466	6	10	3	1	1	1	1	611
Arabs	3	3	3	3	12	3	3	3	3	3	3	12	12	3	3	3	3	3	3	3	3	3	12
Hebrew	75	17	11	12	115	6	42	10	17	2	2	38	115	30	59	16	10	3	1	1	1	1	115

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STATEMENT F.—Showing Sexes and Occupations of Nationalities for United States.

Nationalities.	SEXES.					OCCUPATIONS.							
	Adults.		Children		Totals.	Agriculturists.	Labourers.	Mechanics.	Clerks & Traders.	Miners.	Female Servants.	Not Classed.	Totals.
	Males.	Females.	Males.	Females.									
English	203	127	23	17	370	11	147	26	15	4	58	109	370
Scotch	11	5	7	2	25	.....	11	.....	.....	.....	.....	14	25
Irish	9	5	1	4	19	3	5	.....	1	.....	3	7	19
Norwegians	305	48	14	8	375	24	273	5	3	.....	28	42	375
Swedish	297	60	13	12	382	10	274	4	2	7	34	51	382
Danish	66	15	3	6	90	9	54	3	.....	.....	7	17	90
Russian	237	102	66	64	469	141	73	15	8	.....	5	227	469
Finnish	663	131	29	36	859	3	653	7	.....	.....	65	131	859
Polish	5	.....	.....	.....	5	.....	4	1	.....	.....	.....	.....	5
French	2	.....	.....	.....	2	.....	2	.....	.....	.....	.....	.....	2
Belgian	12	4	4	7	27	.....	11	1	.....	.....	.....	12	27
German	83	36	10	10	139	34	28	11	10	.....	.....	56	139
Austrian	1,008	132	29	25	1,194	361	535	33	.....	78	.....	186	1,194
Hungarian	427	45	6	5	483	304	112	10	1	.....	.....	56	483
Galician	87	21	3	2	113	63	15	9	.....	.....	.....	26	113
Slavaks	4	.....	.....	.....	4	3	1	.....	.....	.....	.....	.....	4
Roumanian	3	4	7	6	20	3	.....	.....	.....	.....	.....	17	20
Bohemian	6	1	.....	.....	7	1	5	.....	.....	.....	.....	1	7
Moravian	6	.....	.....	.....	6	1	2	3	.....	.....	.....	.....	6
Croatian	329	16	.....	1	346	29	300	.....	.....	.....	.....	17	346
Hebrew	9	12	12	16	49	.....	5	1	3	.....	.....	40	49
Greek	31	.....	.....	.....	31	.....	31	.....	.....	.....	.....	.....	31
Italian	51	1	2	1	55	.....	51	.....	.....	.....	.....	4	55
Armenian	9	1	.....	.....	10	.....	5	2	2	.....	.....	1	10
Syrian	42	5	1	.....	48	.....	42	.....	.....	.....	.....	6	48
Portuguese	2	.....	.....	.....	2	.....	2	.....	.....	.....	.....	.....	2
U. S. citizens	32	19	1	4	76	1	36	6	9	.....	1	23	76
Totals	3,939	790	231	226	5,206	1,001	2,678	134	57	89	201	1,046	5,206

F. W. ANNAND,

Dominion Government Immigration Agent.

HALIFAX, N.S., June 30, 1902.

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STATEMENT C.—Showing Sexes, Nationalities and Destinations of Steerage Passengers via different Lines.

Lines.	SEXES.				NATIONALITIES.																					
	Adults.		Children.		Totals.	English.	Welsh.	Irish.	Scotch.	German.	Dutch.	French.	Belgian.	Norway.	Swedish.	Danish.	Icelanders.	Russian.	Finnish.	Polish.	Hebrew.	Roumanian.	Moldavian.	Italian.	Syrian.	
	Males.	Females.	Males.	Females.																						
Allan Line...	4,807	1,096	586	461	7,043	2,629	55	217	542	96	1	25	60	488	483	133	10	474	1,259	27	58	2	73	13	11	14
Furness Line...	106	54	21	22	203	156	..	..	2	15	..	1	1	1	25	3	..	..	..	23	11	73	13	..	72	100
Elder-Donipster Line...	272	88	57	57	474	37	..	4	..	6	..	10	1	450	229	15	..	50	..	..	..	..	..	..	191	194
Franco-Canadian Line...	947	32	27	6	1,012	..	..	..	..	118	..	2	..	..	..	..	..	352	..	..	37	30	110	279	9	350
Hamburg American Line...	2,635	1,368	1,030	1,025	5,088	..	..	..	..	63	..	16	..	..	..	..	..	150	..	1	..	..	..	..	..	..
North German Lloyd Line	1,383	249	38	33	2,363	686	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Lines...	439	272	47	44	822	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	11,329	3,162	1,866	1,648	17,945	3,578	15	222	547	298	2	63	62	945	539	151	10	1,026	1,283	75	164	123	279	283	283	650

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STATEMENT H.—Comparative Statement of Monthly Arrivals, 1900-1 and 1901-2.

Months.	CANADA.		Increase.	Decrease.	STATES.		Increase.	Decrease.	TOTALS.		Increase.	Decrease.
	1900-1901.	1901-1902.			1900-1901.	1901-1902.			1900-1901.	1901-1902.		
July.....	1,272	339	.....	933	22	40	18	.....	1,294	379	.....	915
August.....	141	116	.....	25	32	29	.....	3	173	143	.....	28
September ..	52	125	73	.....	70	50	.....	20	122	175	53	.....
October.....	144	145	1	.....	41	39	.....	2	185	184	.....	1
November.....	259	526	267	.....	196	425	229	.....	455	951	496	.....
December.....	465	229	.....	236	317	120	.....	197	782	349	.....	433
January.....	249	142	.....	107	170	2	.....	168	419	144	.....	275
February.....	248	560	312	.....	407	207	.....	200	655	767	112	.....
March.....	1,233	1,838	605	.....	480	3,077	2,597	.....	1,713	4,915	3,202	.....
April.....	2,091	4,172	2,081	.....	616	647	31	.....	2,707	4,819	2,112	.....
May.....	1,302	2,073	771	.....	30	290	260	.....	1,332	2,363	1,031	.....
June.....	1,141	2,474	1,333	.....	369	280	.....	80	1,501	2,754	1,253	.....
Totals.....	8,597	12,739	5,443	1,301	2,741	5,206	3,135	679	11,338	17,945	8,259	1,652

F. W. ANNAND,

Dominion Government Immigration Agent.

HALIFAX, N.S., June 30, 1902.

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STATEMENT I.—Comparative Statement of Nationalities, 1900-1901 and 1901-1902.

Nationalities.	1900-1901.	1901-1902.	Increase.	Decrease.
English.	1,484	3,208	1,724	
Welsh.	2	55	53	
Irish	44	203	159	
Scotch	233	522	289	
Norwegian	18	570	552	
Swedish	38	157	119	
Danish	11	61	50	
Icelanders		10	10	
Russians	272	557	285	
Finnish	95	424	329	
Polish	18	70	52	
French	68	61		7
Belgians	51	35		16
Germans	40	159	119	
Dutch	5	2		3
Austrians	70	27		43
Hungarians	189	270	50	
Galicians	3,461	4,593	1,132	
Slovaks	14	27	13	
Romanians	143	103		40
Moldavians		279	279	
Croatians		54	54	
Bulgarians		1	1	
Syrians	144	611	467	
Arabs	36	3		33
Hebrews	189	115		74
Greeks	35	55	20	
Italians	1,655	228		1,427
Malays		5	5	
Swiss	6	1		5
Chinese	4	1		3
Turks	2			2
Americans	13			13
United States Citizens	13	7		6
Returned Canadians	189	170		19
Tourists	64	95	31	
Totals	8,597	12,739	5,833	1,691

F. W. ANNAND,

Dominion Government Immigration Agent.

HALIFAX, N.S., June 30, 1902.

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STATEMENT J.—Showing the number of Arrivals according to Ports of Departure.

Ports of Embarkation.	Number.
England, Liverpool...	7,950
" London	558
Scotland, Glasgow	345
Ireland, Londonderry	37
Wales, Cardiff	1
Germany, Hamburg	5,716
" Bremen	2,353
Belgium, Antwerp	790
France, Havre	235
" Boulogne	372
United States, Boston	4,285
" New York	281
Newfoundland, St. John's	874
St. Pierre	81
West Indies and Bermuda	363
Totals	24,241

F. W. ANNAND,
Dominion Government Immigration Agent.

HALIFAX, N.S., June 30, 1902.

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No. 3.

REPORT OF THE QUEBEC AGENT.

(P. DOYLE.)

DOMINION GOVERNMENT IMMIGRATION OFFICE,
QUEBEC, June 30, 1903.The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit my report for the year ending June 30, 1902, with tables giving the numbers of immigrants brought to this port by each line of steamers, their nationalities, trades and callings, general destinations, &c.

The immigrants were of the usual classes and landed in a healthy condition. Those bound for Manitoba and the North-west were of a superior class, generally people of means, who have had experience at farm life ; this, with the money they have at their disposal, will enable them to at once look out suitable locations for their future homes.

Immigrants of all classes, particularly farm hands and men with families, would find it to their advantage to arrive during the months of April, May and June, when labour is most required. By arriving early in the season they secure several months of steady employment and are enabled from their savings of the summer's labour to secure suitable clothing and lodgings for themselves and families in winter, and wealthy farmers and men of means seeking homesteads or improved farms to purchase can form a truer estimate of the real value of the property by an inspection whilst the crops are standing.

The French, Belgian, Scandinavian, Russian and German immigrants bound for Manitoba and the North-west were a fine healthy lot of people. The young people, of whom there was a fair supply of both sexes, will help to supply the increasing demand for male and female labour in the North-west.

The demand for ploughmen, really good farm hands and female domestic servants continued and all of these classes who arrived found immediate employment.

The whole respectfully submitted.

Your obedient servant,

P. DOYLE,

Dominion Government Immigration Agent.

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The arrivals for the year, compared with those of the same period of 1901, were as follows :—

	1901.		1902.		Increase.	Decrease.
	Cabin.	Steerage.	Cabin.	Steerage.		
England.....	4,618	31,356	3,244	32,568	.....	162
Ireland.....	31	424	7	509	61	.....
Scotland.....	47	1,043	106	2,066	1,082	.....
France.....	.....	313	65	624	376	.....
Belgium.....	.....	.....	3	.....	3	.....
	4,696	33,136	3,425	35,767	1,522	162
	.....	4,696	.....	3,425	162	.....
Grand total.....	.....	37,832	.....	39,192	1,360	.....

Showing an increase of 1,360.

The total number of steamships arrived with passengers was 89, tonnage 322,635.

The average passage of the Allan Line was: weekly steamers from Liverpool, 9 days; Londonderry, 8 days. Glasgow steamers from Glasgow, 11½ days. Beaver Line weekly steamers from Liverpool, 9 days. Dominion Line steamers from Liverpool, 10 days. Franco Canadienne Line from Bordeaux, 16 days. Leyland Line from London, 12 days; Antwerp, 15 days.

The number of Cabin and Steerage by each line was as follows :—

	Cabin.	Steerage.	Total.
<i>Allan Line.</i>			
Weekly steamers from Liverpool.....	2,122	13,520	15,642
" " Londonderry.....	7	509	516
" " Glasgow.....	106	2,066	2,172
	2,235	16,095	18,330
<i>Dominion Line.</i>			
Steamers from Liverpool.....	48	874	922
<i>Beaver Line.</i>			
Weekly steamers from Liverpool.....	1,058	18,174	19,232
<i>Franco-Canadienne.</i>			
Steamers from Bordeaux.....	65	624	689
<i>Leyland Line.</i>			
Steamers from London.....	16	.....	16
" Antwerp.....	3	.....	3
	19	.....	19
Grand total.....	3,425	35,767	39,192

2-3 EDWARD VII., A. 1903

The Nationalities of the Passengers

	Returned Canadians.	Tourists.	Arabs.	Armenians.	Austrians.	Australians.	Belgians.	Bukowinians.	Bohemians.	Croatians.	Dutch.	Egyptians.	Finnish.	French.	Galicians.	Germans.	Greeks.	
<i>Alban Line.</i>																		
Weekly, Liverpool . . .	1268	117	7	8	6	11	49	18	2	6	1	3	2012	99	194	92	2	
" Londonderry . . .	11																	
" Glasgow	162	30										3		2		3		
	1441	147	7	8	6	11	49	18	2			4	3	2014	99	194	95	2
<i>Dominion Line.</i>																		
Liverpool	17						1				1		118	26	32	29		
	17						1				1		118	26	32	29		
<i>Beaver Line.</i>																		
Weekly, Liverpool . . .	702	245	41	59	211	2	89	491	7	116	35		757	104	1466	601	88	
	702	245	41	59	211	2	89	491	7	116	35		757	104	1466	601	88	
<i>Franco-Canadienne Line.</i>																		
Bordeaux	9	8		20										122			7	
	9	8		20										122			7	
<i>Leopold Line.</i>																		
London							3											
Antwerp							3											
	2163	409	48	87	217	13	142	509	9	116	40	3	2889	351	1692	725	97	

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brought out by each Line were as follows :—

GREAT BRITAIN.														SCANDINAVIAN.							United States Citizens.	Totals.
English.	Welsh.	Scotch.	Irish.	Hebrews.	Hungarians.	Italians.	Mennonites.	Polish.	Persians.	Romanians.	Russians.	Spanish.	Swiss.	Syrians.	Danish.	Icelandic.	Swedish.	Norwegian.	Turkish.			
6875 13 49	233 1	443 2 1705	415 490 36	94 	19 	4 	52 	25 	 	2 	271 	 	6 	20 	101 	174 1 55	1096 6	1731 11	 	192 	15,642 516 2,172	
6937	234	2210	941	94	19	5	52	32	 	2	275	 	6	20	102	229	1102	1742	 	228	18,330	
516	 	2	2	13	 	 	 	11	 	 	5	 	 	 	12	 	70	67	 	 	922	
516	 	2	2	13	 	 	 	11	 	 	5	 	 	 	12	 	70	67	 	 	922	
2313	20	140	143	5920	205	1893	 	79	1	52	1644	1	8	123	128	20	847	452	46	183	19,232	
2313	20	140	143	5920	205	1893	 	79	1	52	1644	1	8	123	128	20	847	452	46	183	19,232	
12	 	 	 	125	 	15	 	 	 	 	 	 	1	367	 	 	 	 	 	3	689	
12	 	 	 	125	 	15	 	 	 	 	 	 	1	367	 	 	 	 	 	3	689	
 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	16	16	
 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	3	
 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	16	19	
9778	254	2352	1086	6152	224	1913	52	122	1	54	1924	1	15	510	242	249	2019	2261	46	430	39,192	

2-3 EDWARD VII., A. 1903

The following tables give the number of male and female adults, and the sexes of children and infants of each nationality arrived in 1902.

	Adults.		Children.		Infants.	Total.
	Male.	Female.	Male.	Female.		
Returned Canadians...	1,156	798	105	93	17	2,169
Tourists.....	262	101	19	13	5	400
Immigrants—						
Arabs.....	30	8	7	1	2	48
Armenians.....	76	8	1	2		87
Australians.....	7	3	2	1		13
Austrians.....	161	39	3	10	4	217
Belgian.....	105	19	8	7	3	142
Bukowinian.....	233	102	79	57	38	509
Bohemian.....	4	3	1		1	9
Croatian.....	112	2			2	116
Dutch.....	16	8	6	6	4	40
Egyptian.....	2	1				3
Finnish.....	1,959	578	129	151	72	2,889
French.....	216	97	18	13	7	351
Galician.....	683	361	293	217	138	1,692
German.....	337	178	110	59	41	725
Greek.....	82	9	6			97
Great Britain—English.....	5,081	2,597	1,054	884	162	9,778
" Welsh.....	85	60	57	43	9	254
" Scotch.....	1,445	602	143	126	36	2,352
" Irish.....	570	382	63	51	20	1,086
Hebrew.....	3,054	1,382	760	725	231	6,152
Hungarian.....	171	26	13	9	5	224
Italian.....	1,807	60	26	14	6	1,913
Mennonite.....	13	13	7	10	9	52
Polish.....	78	16	11	14	3	122
Persian.....	1					1
Roumanian.....	23	14	10	4	3	54
Russian.....	658	456	334	314	162	1,924
Spanish.....	1					1
Swiss.....	13	2				15
Syrian.....	300	123	42	36	9	510
Scandinavian—Danish.....	145	52	20	14	11	242
" Icelandic.....	106	58	41	30	14	249
" Swedish.....	1,282	437	132	112	56	2,019
" Norwegian.....	1,340	576	166	123	56	2,261
Turkish.....	41	3			2	46
United States Citizens.....	230	141	34	19	6	430
Totals.....	21,885	9,315	3,700	3,158	1,134	39,192

The trades and callings of the male steerage passengers, as per passenger lists, were as follows:—

Agriculturists.....	3,063
General labourers.....	12,574
Mechanics.....	2,889
Clerks and traders.....	627
Miners.....	269
	19,375

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TABLE showing the number of Immigrants landed at Quebec, assisted to emigrate by various Societies during the Year ending June 30, 1902.

By whom sent out.	ADULTS		CHILDREN.		INFANTS		Total.	Destination.
	Male.	Female.	Male.	Female.	Male.	Female.		
Dr. Barnardo, London.....			422	305			727	Toronto, Peterboro', Ont., and Russell, Man.
The Canadian Catholic Emigration Society, London, Rev. E. St. John, Secretary.....			65	31			96	Ottawa.
The Church of England Waifs and Strays Association, London.....			40	39			79	Sherbrooke, P. Q., and Niagara, Ont.
Sheltering Home, Myrtle Street, Liverpool, Mrs. Birt.....			29	42			71	Knowlton, P.Q.
Mr. Fegan's, Homes, 95 Southwark St., London.....			57				57	Toronto.
Home of Industry, Bethnal Green Road, London, Miss Macpherson.....			30	18			48	Stratford.
United British Women's Emigration Association, London, Hon. Mrs. Joyce.....		48					48	General.
Mrs. Sandford.....		46					46	Winnipeg, Man.
Father Berry's Home, 105 Shaw St., Liverpool.....			14	31			45	Montreal.
Manchester and Salford Boys and Girls Society, Manchester.....				18			18	Belleville.
Children's Aid Society, 32 Charing Cross, London.....			10				10	Winnipeg, Man.
The Self Help Emigration Society, London Metropolitan Association, Buckingham St., London.....			9				9	Montreal.
The Kibble Reformatory, Farm School, Paisley, Scotland.....				4			4	Montreal.
Philanthropic Society, Farm School, Red Hill, Surrey.....			3				3	S. John, N.B.
Liverpool Self Help Emigration Society, Water St.....			1				1	Wapella, N.W.T.
Nash Grove School, Prince St., Liverpool.....			1				1	Montreal.
Working Boys Home, Great George St., Liverpool.....			1				1	"
			1				1	Lennoxville, P.Q.
Totals.....		94	683	488			1,265	

STATEMENT of the Number of Immigrants arrived at the port of Quebec, distinguishing the Countries from whence they sailed, up to June 30, 1901 and 1902.

	1901.	1902.
England—		
Liverpool	35,970	35,796
London.....		16
Ireland—		
Londonderry.....	410	516
Queenstown.....	45	
Scotland—		
Glasgow.....	1,094	2,172
France—		
Bordeaux.....	313	689
Belgium—		
Antwerp.....		3
	37,832	39,192

2-3 EDWARD VII., A. 1903

STEERAGE PASSENGERS.
 STATEMENT of Immigration Arrivals and Departures at Quebec Immigration Agency for the twelve months ending June 30, 1902.

Months.	SEXES.				DESTINATIONS.										NATIONALITIES.																															
	Adults.		Children.		Total Number of Souls.	Returned Canadians.							Tourists.			United States.	Total.	Returned Canadians.	Tourists.	Arabs.	Australians.	Austrians.	Belgians.	Bukowinians.	Croatians.	Dutch.	French.	Finnish.	Gallicians.	Germans.	Greek.															
						Lower Provinces.							Quebec.	Ontario.	Manitoba.																	North-west Territories.	British Columbia.	Yukon.												
	Male.	Female.	Male.	Female.		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.																	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.
Arrived via Ocean Travel.																																														
1901.																																														
July...	4,136	2,124	918	727	397	4,136	142	70	37	632	577	612	121	111	1,894	4,136	142	70	910	24	16	9	2		39	337		95	67	4																
August...	3,612	1,946	964	298	440	3,642	237	38	20	623	471	389	95	76	1,033	3,642	237	38	5	11	4			10	40	172		190	73																	
Sept...	4,038	1,872	1,165	521	480	4,038	243	62	29	721	786	328	151	126	1,592	4,038	243	62	16	14				47	245		36	55	6																	
October...	2,427	1,319	671	227	210	2,427	128	35	41	469	323	238	40	83	1,130	2,427	128	35	1	7		3	6		5	45		117	9	35	6															
Nov...	2,110	1,085	534	254	257	2,110	64	34	19	290	214	219	49	38	1,213	2,110	64	34	20	8	1	4			2	6	196		15	42	2															
Dec.																																														
1902.																																														
January																																														
February																																														
March...																																														
April....	1,924	1,238	334	297	145	1,924	9	1	16	315	237	445	172	21	708	1,924	9	1	4	1	13	2	25		3	12	13	162		115	154	59														
May.....	9,284	5,856	1,492	936	890	9,284	78	15	126	1,346	1,485	2,132	562	145	4	3,391	9,284	78	15	6	23	5	151	41	204	113	7	43	927	848	253	20														
June	8,296	4,718	1,490	932	876	8,296	114	5	56	930	1,059	1,915	852	186		3,089	8,296	114	5	2	16	7	15	62	268	1	4	48	763	484	42	4														
Totals..	35,767	20,152	7,848	4,122	3,645	35,767	1,015	290	344	5,296	5,152	6,278	2,042	786	4	14,620	35,767	1,015	290	48	57	13	216	139	500	9	116	40	281	2,889	1,692	721	97													

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STORAGE PASSENGERS—Concluded.

STATEMENT of Immigration Arrivals and Departures at Quebec Immigration Agency for the twelve months ending June 30, 1902.—Con.

Months.		NATIONALITIES.—Con.																	OCCUPATIONS.							For United States—Not Reported Elsewhere.						
		Great Britain.				Scandinavian.													Total.	Agriculturists.	General Labourers.	Mechanics.	Clerks and Traders.	Miners.	Female Servants.		Not Classified.	For Canada—Not Reported Elsewhere.				
Egyptians.	English.	Welsh.	Scotch.	Irish.	Hebrews.	Hungarians.	Italians.	Mennonites.	Polish.	Persians.	Roumanians.	Russians.	Spanish.	Swiss.	Syrians.	Danish.	Icelandic.	Swedish.	Norwegians.	Turkish.	United States Citizens.	General Labourers.	Mechanics.	Clerks and Traders.	Miners.	Female Servants.	Not Classified.	For Canada—Not Reported Elsewhere.	For United States—Not Reported			
1901.	July	3	1,084	3	269	113	1,007	17	77	77	77	77	77	40	1	2	50	28	8	189	203	81	3,042	226	1,198	393	69	27	255	1,948	2,832	1,804
	August		926		206	137	1,031	6	73	17	1	2	50	28	8	189	203	81	3,042	226	1,001	412	89	32	170	1,712	1,948	2,832	1,804			
	Sept.		1,169	2	312	153	924	8	90	45	4	83	29	28	131	249	3	93	4,038	225	1,018	301	74	29	247	2,054	2,446	1,592	1,893			
	October		548		151	76	421	8	130	103	4	169	7	11	172	141	1	53	2,427	151	814	185	62	21	135	1,059	1,297	1,130	1,213			
	Nov.		303		43	68	700	1	73	52	3	170	81	27	110	65	4	16	2,110	115	691	195	39	6	99	965	897	1,213	1,213			
	Dec.																															
1902.	January																															
	February																															
	March																															
	April		539	2	19	90	92	38	10	39	194	1	8	138	180	9	1,924	310	709	178	27	5	86	609	1,216	708						
	May		1,802	10	404	213	604	74	1,183	70	13	634	2	12	90	13	579	591	24	32	9,284	830	4,220	532	151	47	341	3,143	3,893	3,391		
	June		1,557	231	647	220	1,373	78	249	18	721	3	36	30	66	500	586	12	44	8,206	920	2,953	603	116	45	245	3,324	5,117	3,089	3,089		
	Totals.	3	7,928	248	2,242	1,070	6,152	224	1,913	52	122	154	1,924	1	15,509	242	249	2,019	2,261	46	360	35,767	3,063	12,574	2,889	627	2,222	1,548	14,844	21,147	14,620	

QUEBEC, June 30, 1902.

P. DOYLE,
Dominion Government Immigration Agent.

2-3 EDWARD VII., A. 1903

STEERAGE PASSENGERS REMAINING IN CANADA.
 STATEMENT of Arrivals and Departures at Quebec Agency for the twelve months ending June 30, 1902.

Months.	SEXES.				DESTINATIONS.												NATIONALITIES.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	Adults.		Children.		Total Number of Souls.	Returned Canadians.						Tourists.	Returned Canadians.	Tourists.	Arabs.	Armenians.	Australians.	Belgians.	Bukovinians.	Croatian.	Dutch.	Egyptians.	Finnish.	French.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Male.	Female.	Male.	Female.		Returned Canadians.	Tourists.	Lower Provinces.	Quebec.	Ontario.	Manitoba.														North-west Territories.	British Columbia.	Yukon.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
1901.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

QUEBEC, June 30, 1902.

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STEERAGE PASSENGERS REMAINING IN CANADA.—Continued.
STATEMENT of Arrivals and Departures at Quebec Agency for the twelve months ending June 30, 1902.—Continued.

NATIONALITIES.—Cont.																										OCCUPATIONS.						
Months.		Great Britain.						Scandinavians.										U. S. Citizens.	Agriculturists.	General Labourers.	Mechanics.	Clerks and Traders.	Miners.	Female Servants.	Not Classified.	Totals.						
		English.	Welsh.	Scotch.	Irish.	Hebrew.	Hungarian.	Italians.	Mennonites.	Polish.	Romanians.	Russians.	Spanish.	Swiss.	Syrians.	Danish.	Icelandic.										Swedish.	Norwegians.	Turkish.			
1901.		45	16	4	1021	1	250	104	86	11	59	4	4		40	77	5	123	38	50	2	233	483	221	53	29	140	1171	2332			
July		30	31		846		201	121	114		46	4			17	49	4	8	34	16		193	396	197	70	27	108	958	1949			
August		36	51	2	1071	2	279	139	160	8	68	10	1		45	67	7	28	10	33		176	495	221	55	25	147	1327	2446			
September		9	10	6	479		135	68	30		74			2	99	105	3	11	23	1	121	331	197	49	11	67	611	1297				
October		11	3	3	242		43	60	80	1	51	52	3		135	50			10			79	206	57	27	6	48	474	897			
November																																
December																																
1902.																																
January																																
February																																
March																																
April		115	39	59	522	2	18	83	26	27	34	8	39		104	1	1	1	22	18		219	420	18	25	5	54	335	1216			
May		846	100	14	1755	10	582	201	97	9	382	57	13		427	2	12	13	111	110	2	769	2191	348	143	44	218	2180	3893			
June		484	41	1	1492	231	603	210	150	42	186	9			565	3	36	16	66	187	117	877	1446	343	111	44	130	2166	5117			
Totals		1686	291	88	7438	246	2111	986	743	98	1456	52	35	1	1432	111	397	53	249	435	345	16	2667	5968	1592	535	191	912	9282	21147		

P. DOYLE,
Dominion Government Immigration Agent.

2-3 EDWARD VII., A. 1903

STEERAGE PASSENGERS DESTINED
STATEMENT of Arrivals and Departures at Quebec Agency,

Months.	Arrived via Ocean Travel.	SEXES.				Total Number of Souls.	NATION																	
		Adults.		Children			Arabs.	Armenians.	Australians.	Austrians.	Belgians.	Bohemian.	Croatians.	Dutch.	French.	Finnish.	Galician.	German.	Greek.	Great Britain.				
		Male.	Female.	Male.	Female.															English.	Welsh.	Scotch.	Irish.	
1901.																								
July	1804	942	444	218	200	1804									315		51		63	2	10	9		
August	1693	877	462	165	189	1693								2	150		42		80			5	16	
September ..	1592	765	454	187	186	1592		3				7			1	193		4		98			33	14
October	1130	614	304	110	102	1130						6		5	4	124		25		69			16	8
November ..	1213	641	281	153	138	1213	20	6						12		158	4	39		61				8
December ..																								
1902.																								
January																								
February																								
March																								
April	708	462	111	74	61	708		4			12				1	70		115		17			1	7
May	3391	2305	573	278	235	3391		7	2		122	12			1	797	2	153	6	37			22	12
June	3089	1816	644	319	310	3089		6						2	5	625		1	3	65			44	10
Totals	14620	8422	3273	1504	1421	14620	20	26	2	134	19	6	113	9	14	2432	6	430	9	490	2	131	84	

QUEBEC, June 30, 1902.

SESSIONAL PAPER No. 25

FOR THE UNITED STATES.

for the twelve months ending June 30, 1902.

ALITIES.													OCCUPATIONS.									
Hebrews.	Hungarian.	Italian.	Polish.	Russian.	Swiss.	Syrian.	Scandinavian.				Turkish.	United States Citizens.	Total.	Agriculturists.	General Labourers.	Mechanics.	Clerks and Traders.	Miners.	Female Servants.	Not Classified.	Total.	
921	6	18	3	.....	.....	.....	27	..	142	205	..	32	1804	33	715	172	14	8	85	777	1804
917	6	25	.....	.....	.....	1	24	..	155	187	..	81	1693	33	605	215	19	5	62	754	1693
764	.....	22	.....	.....	.....	16	13	..	121	207	3	93	1592	49	523	170	19	4	100	727	1592
391	8	56	.....	4	4	64	4	..	149	140	..	53	1130	30	483	78	13	10	68	448	1130
620	.....	22	.....	35	..	31	22	..	100	65	4	16	1213	36	455	138	12	..	51	521	1213
.....	
.....	
66	5	4	2	90	.....	.....	7	..	136	162	..	9	708	91	289	80	2	..	32	214	708
507	65	245	13	207	.....	.....	78	..	468	481	22	19	3391	81	2029	184	8	3	123	965	3391
1223	36	63	9	156	.....	.....	14	..	313	469	1	44	3089	43	1507	260	5	1	115	1158	3089
5409	126	457	27	492	4	112	189	..	1584	1916	30	347	14620	396	6606	1297	92	31	636	5562	14620	

P. DOYLE,

Dominion Government Immigration Agent.

2-3 EDWARD VII., A. 1903

CABIN PASSENGERS REMAINING IN CANADA.
 STATEMENT of Arrivals and Departures at Quebec Agency for the twelve months ending June 30, 1902.

Months.	SEXES.						DESTINATIONS.										NATIONALITIES.										OCCUPATIONS.						Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Adults.			Children.			Total Number of Souls.	Returned Canadians.						Tourists.	Lower Provinces.	Quebec.	Ontario.	Manitoba.	North-west Territories.	British Columbia.	Yukon.	Total.	Returned Canadians.	Tourists.	Austrians.	Belgians.	French.	Germans.	English.	Welsh.	Scotch.	Irish.		Syrian.	Total.	Agriculturists.	General Labourers.	Mechanics.	Clerks and Traders.	Female Servants.	Not Classified.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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P. DOYLE,
 Dominion Government Immigration Agent.

QUEBEC, June 30, 1902.

SESSIONAL PAPER No. 25

CABIN PASSENGERS FOR UNITED STATES.

STATEMENT of Arrivals and Departures at Quebec Agency for the twelve months ending June 30, 1902.

MONTHS.	Arrived via Ocean Travel.				SEXES.		Total Number of Souls.				NATIONALITIES.				OCCUPATIONS.						Total.
					Adults.						Child- ren.	Great Britain.				United States Citizens.	Agriculturists.	General Labourers.	Mechanics.	Clerks and Traders.		Female Servants.	Not classified.
	Male.	Female.	Male.	Female.	English.	Welsh.	Scotch.	Irish.													
1901.																					
July	22	10	11	1	...	22	1	...	...	...	...	...	...	21	...	...	...	...	...	22	22
August	19	10	8	1	...	19	...	...	...	...	...	...	...	19	...	...	...	...	...	19	19
September	24	12	11	1	...	24	13	...	...	2	...	...	...	9	...	...	...	...	...	24	24
October	17	7	10	...	...	17	12	...	...	...	...	...	...	15	...	...	...	...	...	17	17
November	2	...	1	...	1	2	...	...	...	2	...	...	...	...	...	...	...	...	...	2	2
December																					
1902.																					
January																					
February																					
March																					
April																					
May	14	5	6	2	1	14	10	...	...	...	...	...	...	4	...	...	...	...	...	14	14
June	10	4	4	2	...	10	5	...	...	3	...	...	...	2	...	...	...	...	...	10	10
Total	108	48	51	7	2	108	31	...	...	7	...	...	...	70	...	...	...	...	...	108	108

P. DOYLE,

Dominion Government Immigration Agent.

QUEBEC, June 30, 1902.

2-3 EDWARD VII., A. 1903

No. 4.

REPORT OF THE MONTREAL AGENT.

(JOHN HOOLAHAN.)

DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1902.The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit the report of this agency for the financial year ending June 30, 1902, and, attached thereto, statistical information covering this period.

Statement 'A' shows the number of immigrant arrivals at Montreal per ocean travel via the United States ports of New York, Boston and Portland, their nationalities, occupations and destinations.

Statement 'B' shows the number of immigrant arrivals from the United States, their nationalities, occupations and destinations.

Statement 'C' shows the number of juvenile immigrant arrivals at Montreal and their destinations, person in charge and by whom sent.

Statement 'D' shows the number of applications for help received at this agency.

Statement 'E' gives the retail prices of food, fuel, &c., for the working classes in Montreal.

Statement 'F' gives the retail prices of clothing, &c., for the working classes in Montreal.

Statement 'G' gives the average rate of wages for mechanics, labourers and domestic servants.

The return at this agency of the number of immigrant arrivals at Montreal from the United States will be found in the statements 'A' and 'B' with full particulars.

The steerage passengers arriving from the United Kingdom or European ports by the different steamship lines at Quebec, Halifax, N.S., and Saint John, N.B., and who are compelled to disembark there, are taken into account at these ports, being transferred to the railways for transportation to their destinations. The first and second class passengers, as a rule, prefer remaining on board until arrival at Montreal.

The Montreal agency has kept careful count of all immigrants arriving here, intended settlers in Canada. Our officers make a thorough canvas of every train, making note of name, sex, age, nationality, occupation, name of steamship and final destination of the new arrivals. It is only applied to immigrants coming from Europe via ports in the United States and bound for Canadian points. A statement of the details thus secured is furnished every month to the department in Ottawa. The Superintendent of Immigration at Ottawa, and the Commissioner of Immigration at Winnipeg, are always informed by telegraph of the number, nationalities and time of departure of western bound immigrants from Montreal.

It is my duty to report a decrease in the number of immigrant arrivals in Canada via ports in the United States during the fiscal year ending June 30, 1902, mainly due to the fact that the Allan line passengers landed at Halifax last winter instead of at Portland, Me., as during the winter season of 1900 and 1901.

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The total number of immigrant arrivals per ocean travel via ports in the United States, as per statement 'A,' for the year ending June 30, 1902, was..... 4,036

The total number of immigrant arrivals from the United States, as per statement 'B,' for the year ending June 30, 1902, was..... 3,014

Total..... 7,050

The total number of immigrant arrivals at Montreal from the United States and per ocean travel via ports in the United States, during the corresponding twelve months of the years 1900 and 1901, was..... 8,132

A decrease of..... 1,082

There have been issued from this office during the year, 143 certificates to immigrants bound for Manitoba, the North-west Territories and British Columbia. The certificate plan works most successfully according to my experience, as owing to the arrangements with the Canadian Pacific Railway Company, it enables settlers to convey their families and effects to their destinations at a greatly reduced cost.

There was a large demand for general labourers in the city and district of Montreal during the open season.

Works in progress in connection with the local harbour improvements, the shipping, the new railway constructions, the street railway extensions, the building trades, &c., have had a marked effect on the supply and demand for all classes of labour. In addition Montreal has become a centre where large employers of labour come to seek men to help them carry out their contracts. The rate of wages offered is also higher than in the preceding year.

There is a large and growing demand for male and female farm hands. Agricultural machinery of various kinds is in daily use, but labour is very scarce notwithstanding, and good hands can in the proper season find constant employment at good wages. The abundant harvest in the Canadian west last year called for 20,000 farm labourers from the eastern provinces, and the Canadian Pacific Railway Company gave a special rate to them to Winnipeg in order to save the crop.

Market gardeners, gardeners, grooms and coachmen can secure positions if capable and well recommended, provided they arrive in the spring.

In regard to female domestic servants, the position is much the same as during the last and previous years. There is no limit to the demand, and the inquiries I received from all sources asking for servants of this class show that the wants of the Canadian people in this line will not easily be filled. The wages are good, the conditions of service are not irksome, and comfortable homes are assured. Servants should, however, bring with them their certificates as to competency and character, as good records are as indispensable in Canada as elsewhere. Such immigrants can find employment no matter at what season of the year they may arrive. The large commercial and industrial establishments and stores and offices open a field for Canadian young women, which, in many cases, they prefer to housework.

There is little or no demand for mechanics, book-keepers and clerks, the local supply being sufficient to meet the requirements. People of these vocations desiring to emigrate to Canada should ascertain that positions have been secured for them on their arrival or else have with them sufficient money to enable them to wait a suitable opportunity of securing employment at their special trade or calling.

It is satisfactory to be able to state that the class of immigrants arriving this year has improved in every respect. During the past few years there has been a marked improvement in the character and general appearance of the new arrivals. This year the difference over previous periods is still more pronounced and it can be frankly asserted that Canada may well be proud of the new additions to her population. They

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were principally of the farming class. The large majority went to Manitoba, the Northwest Territories and British Columbia, the remainder being distributed throughout the provinces of Ontario and Quebec.

My statement is not only based on personal observation, but is corroborated by the leading officials of the different national and benevolent societies of the city of Montreal. I append their views on the subject, as follows :—

Mr. Joseph Richards, chairman of the charitable committee of the St. George's Society states, that there were 930 English and Welsh immigrants accommodated in the St. George's Home during the year. There was no increase of expenditure on immigration account over the preceding year, and the new arrivals were of a very desirable class. The majority after a short stay, went to their new homes in western Canada and the eastern townships of this province ; a small percentage remained in the city of Montreal because the heads of the different families secured employment here at their respective trades. Mr. Richards adds that the Canadian government immigration agents in England and Wales have done excellent work, securing such a suitable and self-supporting class of immigrants for Canada, and at the same time to prevent undesirable persons from coming to this country.

Mr. M. Delahanty, chairman of the charitable committee of St. Patrick's Society, states that the amount the St. Patrick's Society has expended on immigration account during the year just closed was very small. They had very few applications for financial help. Employment was provided for those preferring to remain in Montreal and railway fares paid for some who were anxious to go where work was more easily obtainable than here. These facts establish, without doubt, that the Irish who have come to Canada are desirable, self-reliant people and welcome additions to our population.

Mr. William Seale, chairman of the charitable committee of the Irish Protestant Benevolent Society, said that the immigrants who have come into contact with the society during the year ended June 30, 1902, were the makings of good citizens. They were of a most suitable and self-reliant class. Almost all of them had sufficient funds to keep them until they secured employment. It is Mr. Seale's impression that, during the past four years, the class of immigrants coming to Canada from the United Kingdom has greatly improved in every respect.

Mr. William Seath, chairman of the charitable committee of the St. Andrew's Society, states that the number of Scotch immigrants admitted into the St. Andrew's Home during the last twelve months was about the same as in the twelve months previous, and the amount of money spent by the society on immigration account showed little difference. Their objective point was mostly western Canada, and their stay at the Home was only for a day or two in order to recuperate. Work was secured for those who remained in Montreal, and all have proved themselves a credit to the land of their adoption.

Mr. A. Duboulay, secretary of L'Union Nationale Française de Montreal, Société de Bienfaisance, Maison de Refuge, fondée le 20 octobre, 1886, said, that the year just closed shows an increased number of French and Belgian immigrants admitted to the Home, and a consequently increased expenditure as compared with previous years. Almost all of them arrived with sufficient funds to support themselves until comfortably settled; the western provinces being generally their objective point. There was a large percentage who have settled in the Lake St. John district, the reports from whom are encouraging.

Mr. James Irvine, Superintendent of the Protestant House of Industry and Refuge, states that there was no application for charity or assistance from immigrants, and no moneys were expended on immigration account. Mr. Irvine thinks this is proof positive that the immigration for the past twelve months has been of advantage to Canada, and that the new arrivals are well able to take care of themselves.

Mr. Alberto Dini, President of the Italian Benevolent Society, states that during the past twelve months Italian immigration was entirely satisfactory. The new ar-

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rivals of this nationality were almost all of a young, robust and hard-working class of general labourers and navvies, and for whose services there was a great demand, the wages offered being in advance of previous years. In consequence there were none who became public charges and who required the assistance of the society. As regards the Italian colony here, it is prosperous and a credit to Canada.

Not only have immigrants settling in Canada been furnished with every necessary information relative to the locations which have to be their future homes, but pains have been taken to convey this necessary information in their own native language; the supplies of immigrant literature, furnished us by the department, printed in English, French and the different European languages being carefully distributed according to nationality. This practice has been extended even to immigrants of foreign nationalities going through Canada to seek homes in the western states.

It is with much pleasure that I am in a position to state that the repatriation movement continues to grow with extraordinary vigour. Canadians who had taken up their residences in the United States have returned to their native country in thousands. This statement does not include only people who thought farming conditions were better in the United States but also those who crossed the border to work in factories. Many of these two classes are returning and, when fully settled, will bring back others. I have every reason to believe that in the next twelve months the repatriation movement, which at present may be said to be practically in its infancy, will grow with gigantic proportions.

I am glad to be able to state that the general health of the immigrant settlers for Canada, arriving here during the year, has been good. There were very few cases calling for medical treatment and hospital accommodation. These were of a mild form of indisposition and the patients were in due course discharged as cured. I have, however, to report the following cases:—

On December 20, 1901, Thomas Laidlow, of a party of Scotch immigrants ex ss. *Corinthian*, coming out to Manitoba, was taken sick on the way to Montreal. He was suffering from the measles. He was detained here and private lodgings had been provided for the patient. The Hon. Dr. Guerin took charge of the case. In due time Laidlow recovered and resumed the journey to his destination.

On September 8, 1901, Mrs. Fiebelkom and child, Apolonia, aged two years, Russian immigrants, ex-ss. *Parisian*, for Winnipeg, were sent to private lodgings, the child having measles. The child was discharged in due course, convalescent.

It gives me great satisfaction to state that all immigrants arriving at this port have expressed themselves highly satisfied with their treatment at the hands of the different steamship and railway companies, and that their experience in this regard was all that could be desired.

Within the past year the Canadian Pacific Railway Company has established most complete and commodious waiting rooms in the basement of the Windsor Street Station. While every convenience and special comfort of the new arrivals is looked after, every care is taken to protect them against the machinations of unprincipled people who might seek to victimize these strangers. Accommodation is provided for the men and women in different chambers. Hot and cold water facilities for washing clothing, &c., are in the women's compartment. There is also a store where provisions are sold to the immigrants at city prices. The quarters are cheerful and well ventilated. In a word, the company has spared no expense to meet the sanitary and other requirements of the immigrants.

During the year much correspondence has been answered. It generally dealt with questions as to the demand for labour in Canada, cost of living, price of farm lands, rates of wages, steamship and railway fares, &c. All inquiries were carefully answered and the fullest information given.

Your obedient servant,

JOHN HOOLAHAN,
Dominion Government Immigration Agent.

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STATEMENT A.—Showing the Immigrant Arrivals and Departures at the year ending

Months.	SOULS.										NATION										
	Adults.					Children					Great Britain.										
	Male.	Female.	Male.	Female.	Arab.	Austrian.	Belgian.	Bukowinian.	Dutch.	Finnish.	French.	Galician.	German.	Greek.	English.	Irish.	Scotch.	Welsh.	Hebrew.	Hungarian.	Italian.
1901.																					
July	176	92	49	37	3	8	4			12	13	82	19	2	154	2	2		7	16	4
August	76	43	15	18		1	1			6	2	15	13		62	2	1		1	6	6
September	108	78	20	13						5	1	36	2		116	2	3		6	17	2
October	117	99	43	29		13				14	18	3	61		95	4				18	14
November	168	86	34	37		6	1	2		2	2	20	70		50	1	10	7	40	28	12
December	120	64	34	29	10	6		4		1	4	29	47	1	17	5	11		9	28	17
1902.																					
January	77	20	8	3	5	4		3		6	1	4	10		22	2	9		5	27	6
February	53	12	4	1			2			2		8	2	5	3		5		5	20	14
March	288	63	47	34				5		51	1	18	39		83		2		7	157	25
April	760	181	219	52		12	14			4	17	15	74		580	14	17		7	86	247
May	231	38	17	18	10		2	2		13	8	5	26	2	9				1	18	143
June	247	38	18	22	3			2	1	20	10	17	19		4		4		2	49	164
Total	2,421	814	508	293	31	29	26	41	1	136	77	252	382	10	1,195	30	64	7	90	470	654

DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1902.

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Montreal Agency by Ocean Travel *via* Ports in the United States, for the June 30, 1902.

ALIQUITIES.								OCCUPATIONS.								DESTINATIONS.								Totals.
Polish.	Roumanian.	Russian.	Scandinavian.				Finnish.	Farm labourers.	General labourers.	Mechanics.	Clerks and traders.	Miners.	Female servants.	Not classified.	Lower Provinces.	Province of Quebec.	Ontario.	Manitoba.	North-west Territories.	British Columbia.				
			Danish.	Norwegian.	Swedish.	Syrian.															Swiss.			
3	12		1	12			49	35	56	8	18	10	39	139		67	99	131	39	18	354			
4	9	1	9	13			16	25	20	4	11		23	53	5	33	30	45	19	20	152			
	3	2	1	23			28	11	36	7	20	5	46	66		78	40	63	17	21	219			
	9		9	28			21	27	33	6	19	11	59	112		79	73	55	60	21	288			
	9	3	26	6	30		28	28	43	42	14	13	40	117		114	25	77	61	48	325			
7	31	2	2	1	7	8	25	17	58	5	9	6	29	98		35	44	99	47	22	247			
				1	3		23	6	21		4	23	8	23		13	15	23	38	19	108			
	3			2			44	11	17	2	2	14	7	10		5	14	21	14	16	70			
	7	2	4	14	88		68	295	132	4	6	41	30	114		79	83	50	121	99	432			
6			3	12	36	1	21	24	336	10	20	31	113	339		294	502	209	152	55	1,212			
	7	6	3	2	20		27	33	172	2	1	13	15	56		93	60	58	58	35	304			
																126	62	67	57	13	325			
29	50	53	40	56	303	8	2	357	573	1,074	91	125	200	426	1,190	5	1,016	1,047	898	683	387	4,036		

JOHN HOOLAHAN,
Dominion Government Immigration Agent.

2-3 EDWARD VII., A. 1903

STATEMENT B.—Showing Immigrant Arrivals and Departures at the Montreal Agency from the United States, for the year ending June 30, 1902.

Months.	Sexes.		NATIONALITIES.														OCCUPATIONS.							DESIGNATIONS.					Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Adults.		Child ren.	Returned Canadians.														General labourers.	Mechanics.	Clerks and Trades.	Miners.	Female servants.	Not classified.	Province of Quebec.	Ontario.	Manitoba.	North-west Territories.	British Columbia.		Returned Canadian.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Males.	Females.		Males.	Females.	Armenian.	Finnish.	German.	English.	Irish.	Scottish.	Hebrew.	Hungarian.	Italian.	Polish.	Russian.	Danish.														Norwegian.	Swedish.	Slovakian.	United States Citizens.	Farm labourers.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1901.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

JOHN HOOLAHAN,
Dominion Government Immigration Agent.

DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1902.

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STATEMENT C.—Showing the number of Children received at the Montreal Agency whom in charge of and destination, for the year ending June 30, 1902.

Date.	Name of Person in Charge.	Number of Children.	Destination.	By whom Sent.
1901.				
July 30.	Mr. D. White	68	Winnipeg, Man.	Dr. Barnardo.
" 30.	"	20	Russell, Man.	"
" 30.	"	11	Ontario points	"
Aug. 3.	Mr. A. B. Owen	104	Peterboro, Ont.	"
" 3.	Miss Cross	22	Niagara, Ont.	Church of England Waifs and Strays Sv.
Sept. 7.	Rev. W. Cooksey	31	Ottawa, Ont.	Can. Catholic Emigration Committee.
" 28.	Mr. A. B. Owen	94	Toronto, Ont.	Dr. Barnardo.
" 28.	"	102	Peterboro, Ont.	"
" 28.	Mr. D. White	15	Winnipeg, Man.	"
" 28.	"	9	Russell, Man.	"
" 28.	Rev. J. Sprinkling	19	Ottawa, Ont.	Can. Catholic Emigration Committee.
" 28.	Mr. D. H. Daly	8	Prince Albert, Sask.	"
Oct. 13.	Mr. F. Hill	17	Hamilton, Ont.	Dr. Stephenson.
Nov. 11.	Miss Freeman	3	Knowlton, Que.	Mrs. L. Birt.
1902.				
Mar. 5.	Mr. A. Drummond and Miss Ladd	48	"	"
April 8.	Mr. A. B. Owen	170	Toronto, Ont.	Dr. Barnardo.
" 8.	Mr. Struthers	30	Russell, Man.	"
" 8.	"	20	Winnipeg, Man.	"
" 8.	Mr. S. A. Homer	37	Hamilton, Ont.	Dr. Stephenson.
" 19.	Rev. R. Wallace	47	Belleville, Ont.	Rev. R. Wallace.
May 4.	Miss Yates	13	Montreal, Que.	Can. Catholic Emigration Committee.
" 4.	Mr. C. H. Arden	29	Ottawa, Ont.	"
" 4.	Rev. Barron	12	Montreal, Que.	Soc. for Promoting Christian Knowledge
" 4.	"	5	Ontario points	"
" 4.	"	12	Winnipeg, Man.	"
" 11.	Mrs. Davies	105	Peterboro, Ont.	Dr. Barnardo.
" 11.	Mr. W. Wahmsley	58	Toronto, Ont.	J. W. C. Fegan.
" 11.	Miss Redshaw	17	Belleville, Ont.	Rev. R. Wallace.
" 19.	Sister Demission	12	Ottawa, Ont.	Can. Catholic Emigration Committee.
" 19.	"	4	Brandon, Man.	"
" 19.	Miss Cross	15	Niagara, Ont.	Church of England Waifs and Strays Sv.
June 7.	Miss Johnson	49	Stratford, Ont.	Miss McPherson.
" 16.	Miss Yates	32	Montreal, Que.	Can. Catholic Emigration Committee.
" 16.	Miss Ladd and Mr. Merry	76	Knowlton, Que.	Mrs. L. Birt.
Total		1,314		

JOHN HOOLAHAN,

Dominion Government Immigration Agent.

DOMINION GOVERNMENT IMMIGRATION AGENCY,

MONTREAL, June 30, 1902.

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STATEMENT D.—List of Immigrants wanted at the Montreal Agency, for the year ending June 30, 1902.

Class of Labour.	1901.					1902.					Remarks.			
	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.		May.	June.	Total.
Bakers.....	1	2											3	Local supply sufficient.
Blacksmiths.....								12	5				17	" "
Carpenters.....	4	6	3	2	3	2		3	6				29	" "
Clerks.....														No demand.
Express drivers.....	1	4						2	3	2	3		15	Local supply sufficient.
Female—general servants.....	28	35	28	32	22	25	23	20	33	31	32	34	349	Good demand.
" cooks.....	12	18	12	10	8	7	5	4	12	9	12	10	119	" "
" housemaids.....	10	16	14	9	8	6	5	6	10	12	18	16	130	" "
" laundresses.....	7	5	6	4	4	2	2	1	5	4	3	4	47	" "
" waitresses.....	6	5	4	8	5	3	4	5	9	7	5	7	68	" "
Farm hands.....	45	60	48	29	12	10	8	10	45	75	60	50	452	" "
Gardeners.....	5	4	2	2							5	2	20	Fair demand (in season).
General labourers.....	200	600	300	75	25	12	10	14	50	110	300	250	1946	Good demand.
Grooms and coachmen.....	3	3			1				2	3	3	2	21	Local supply sufficient.
Machinists.....				25									25	" "
Miners.....	50	50									100	20	220	Good demand (Western Ontario).
Tailors.....	5	3			2								10	Local supply sufficient.
Plumbers and tinsmiths.....			3	5	4	1							13	" "
Waiters.....	3	6	3	3		2					2		19	" "
Boys—office.....	2												2	No demand.
" bell.....	8	10	4	6	2	3	4	2	5	3	6		53	Fair demand.
" for care of horses.....	9	8	2	3	2	4	2	3	6	7	4	6	56	" "

JOHN HOOLAHAN,

*Dominion Government Immigration Agent.*DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1902.

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STATEMENT E.—Showing list of retail prices of ordinary articles of food and fuel required by the working classes of Montreal, 1902.

Provisions.	Prices.		Provisions.	Prices.	
	From.	To.		From.	To.
	\$ cts.	\$ cts.		\$ cts.	\$ cts.
Bacon, per lb.	0 13	0 15	Oatmeal, per lb.	0 2	0 3
Beef "	0 5	0 18	Potatoes, per bushel	0 40	0 75
Mutton "	0 10	0 15	Mustard, per lb.	0 25	0 40
Veal "	0 10	0 15	Pepper "	0 20	0 40
Pork "	0 10	0 15	Rice "	0 3	0 5
Ham "	0 13	0 15	Salt "	0 1	0 1
Herring, per doz.	0 35	0 40	Sugar, white, per lb.	0 5	0 5
Butter, per lb.	0 18	0 25	" brown "	0 4	0 4
Cheese "	0 13	0 15	Coffee, roasted "	0 20	0 40
Eggs, per doz.	0 15	0 25	Tea, black "	0 20	0 60
Milk, per grt.	0 5	0 8	" green "	0 20	0 50
Bread, white, 4 lb. loaf.	0 16	0 16	Soap, laundry "	0 5	0 8
" brown, 6 "	0 16	0 16	Tobacco "	0 10	1 00
Flour, per brl.	4 00	5 50	Coal oil, per gall.	0 20	0 28
" buckwheat, per lb.	0 2	0 3	Firewood, per cord.	4 50	6 50
" cornmeal "	0 2	0 3	Coal, per ton.	6 00	6 50

JOHN HOOLAHAN,

Dominion Government Immigration Agent.

DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1902.

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STATEMENT F.—Showing list of retail prices of ordinary articles of raiment required by the working classes of Montreal for 1902.

Clothing, &c.	PRICES.	
	From.	To.
	8 cts.	8 cts.
Coats, under, tweed	4 00	6 00
" over, tweed	8 00	15 00
Trowsers, tweed	2 00	3 00
Vests, tweed	1 00	2 00
Shirts, flannel	0 50	1 00
" cotton	0 50	1 00
" under, woven	0 40	0 75
Drawers, woollen	0 40	0 75
Hats, felt	1 00	2 50
Socks, worsted	0 15	0 40
" cotton	0 10	0 25
Blankets	2 00	3 00
Rugs	0 75	2 50
Flannel, per yard	0 20	0 40
Cotton, shirting, per yard	0 08	0 12
Sheeting, per yard	0 08	0 15
Canadian cloth, per yard	0 40	0 75
Shoes, men's	1 50	3 50
" women's	1 00	2 50
Boots, men's	1 50	3 50
" women's	1 50	3 00
India rubber over shoes, men's	0 60	1 00
" " women's	0 50	1 00

JOHN HOOLAHAN,

*Dominion Government Immigration Agent.*DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1902.

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STATEMENT G.—Showing the average rate of wages at Montreal, 1902.

Employment.	Wages.		Remarks.
	From.	To.	
	8 cts.	8 cts.	
Farm labourers, per month and board	10 00	20 00	
Females, farm servants, per month and board	6 00	13 00	
" cooks, per month and board	10 00	20 00	The average cost of board and lodging for workingmen is from \$3.00 to \$4.00 per week.
" domestics, per month and board	8 00	15 00	
Gardeners, per month and board	12 00	25 00	
Lumbermen, per month and board	18 00	30 00	
Bricklayers, per day	2 50	3 50	
Carpenters, per day	1 50	2 00	
Electricians, per day	2 00	2 50	
Engine-drivers, stationary, per day	2 00	2 50	The rent of workingmen's dwellings (three to four rooms) is from \$6.00 to \$9.00 per month. In the suburbs cheaper rent can be had.
General labourers, per day	1 25	1 50	
Laundresses, per day	0 75	1 00	
Masons, per day	2 00	3 00	
Mechanics, per day	2 00	2 50	
Millhands, per day	1 25	1 75	
Miners, per day	1 50	2 00	
Saddlers, per day	1 50	2 00	
Shipwrights, per day	1 50	2 50	
Shoemakers, per day	1 50	2 00	
Smiths, per day	1 50	2 50	
Tailors, per day	1 50	2 50	
Plumbers, per day	1 50	2 50	
Wheelwrights, per day	2 00	2 50	

JOHN HOOLAHAN,

*Dominion Government Immigration Agent.*DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1902.

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REPORT OF THE ANDREWS HOME, MONTREAL.

*(Appended to Agent Hoolahan's Report.)*THE ANDREWS HOME,
46 BELMONT PARK, MONTREAL, July 14, 1902.The Dominion Immigration Agent,
Montreal.

SIR,—The Andrews Home, 46 Belmont Park, is established for the purpose of welcoming, caring for and assisting to obtain employment for all English speaking immigrants who may desire to benefit by such institution.

The work is directed by governors and a house committee composed of clergy and laity, gentlemen of the city with lady visitors who are appointed by the Archbishop of Montreal.

The Rev. Canon Renaud is the chaplain and secretary, as he is also the duly appointed chaplain, respectively, of the Society for the Propagation of Christian Knowledge, London, England, the Church Emigration Society, the Liverpool Self-Help Emigration Society, and the Metropolitan Association for befriending young servants, London, England. The whole work of the Andrews Home is personally supervised by the Archbishop of Montreal, who is the president of the corporation of the home.

The home is comfortably furnished, having two distinct and separate departments for men and women, with separate entrances, and is within four minutes walk of both railway stations. The rooms are large and airy with hot and cold water baths, which are greatly appreciated and are at the disposal of the immigrants.

The janitor meets all immigrant trains and vessels. English speaking immigrants en route to the west coming into the city can obtain suitable accommodation at a small cost and will be assisted, advised and furthered on their way.

Special care is taken of any young girls or women travelling alone, and a room is devoted to the members of the Girls' Friendly Society, which is greatly appreciated by them on their first arrival, and subsequently is of much benefit upon changing their situations. Our matron being from Bavaria speaks German and also French and English. From her knowledge of her own people (the Germans) she is confident that many of the German girls would avail themselves of the opportunity of coming to Canada to enter domestic service, if they were assisted to emigrate. We would be very glad to co-operate with the government in this matter.

The Grand Trunk system and Canadian Pacific Railway authorities are most courteous and energetic in assisting us in our work. The Dominion government agent, Mr. John Hoolahan, and his assistant, Mr. Alphonse Regimbal are most helpful, and as in years past cheerfully render us all the assistance within their power. If it were not for the government officers here and at Quebec our work would be multiplied and not nearly as satisfactory as it is.

The Andrews Home is not a house of refuge. We do not admit the tramp element. Our aim is to encourage all immigrants who may come within our influence to be independent and assist in making Canada a great country. Our ordinary charge per week for men is \$3, for lads, from \$2 to \$2.50, children, half price, young women, \$2.50. There is many a case where the committee has made a reduction even of these rates and instances where for cause no charge has been made.

The charge per day is 50 cents, which includes time and care in securing tickets, looking after baggage, besides food, bed and hot and cold water baths.

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We interfere or compete with no association or society, but are prepared to assist all Church of England and English speaking immigrants who may desire to benefit by the establishment of the Andrews Home. Subjoined please find our statistics for the past year.

Your obedient servant,

J. FREDERICK RENAUD,
Chaplain and Secretary.

Immigration Report of the Andrews Home for twelve months ending June 30, 1902.

Individual visits to office....	1,674
Total number of visits to office....	24,351
Newly arrived men and lads....	1,139
English letters received....	163
English letters written....	140
Canadian letters received....	633
Canadian letters written....	630
Letters received for immigrants....	911
Lads under twenty....	201
Situations obtained for men and lads....	375
Moneys received for tickets and in trust....	\$3,048 51
Moneys expended for tickets and refunded....	\$3,273 21

Women's Report.

Visits to matron's office....	1,630
Applications for girls....	592
Girls applying for situations....	122
Situations obtained for girls....	112
Newly arrived women....	1,391
Newly arrived female children....	79
Women passed through the home....	474
Total number of visitors to both offices....	4,039
Total number of situations obtained male and female....	487
Total number of newly arrived....	1,162

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REPORT OF THE WOMEN'S NATIONAL IMMIGRATION SOCIETY.

(Appended to Agent Hoolahan's Report.)

87 OSBORNE STREET, MONTREAL, P.Q., July 16, 1902.

The Dominion Immigration Agent,
Montreal.

SIR,—In accordance with the request of the government, contained in a circular dated May 20, I am directed by the acting president of the above society to forward to you a report of the year's work, dating from July 1, 1901, to June 30, 1902.

Three hundred and thirty immigrants have passed through the home.

English.	185	Silicians.	1
Scotch.	34	Hungarians.	3
Irish.	62	Canadians.	1
Swedes.	33	Americans.	1
Norwegians.	7	French.	1
Icelanders.	2		
Church of England.	163	Baptists.	4
Church of Ireland.	8	Plymouth Sister.	1
Church of Scotland.	19	Congregationalists.	6
Roman Catholics.	66	Society of Friends.	1
Presbyterians.	13	Methodist.	1
Lutherans.	41	Jewess.	1
Wesleyans.	5	Atheist.	1

One hundred and sixty-four immigrants have been sent out by the Hon. Mrs. Joyce, of the United British Emigration Association. All these have been sent in charge of competent matrons, the majority of them proceeding to the North-west.

MARION DRAKE,

Secretary of the W.N.I. Society.

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No. 5.

REPORT OF G. BOGUE SMART, INSPECTOR OF BRITISH IMMIGRANT CHILDREN AND RECEIVING HOMES.

OTTAWA, June 30, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit my third annual report as Inspector of British Immigrant Children and Receiving Homes in Canada.

The emigration of children from Great Britain to Canada is purely a philanthropic enterprise, and its value to the Dominion will be more appreciated when it is remembered that through this agency about a thousand or more children are emigrated annually and settled throughout the different provinces of Canada.

Of the earlier emigrated children many have done remarkably well ; the larger number have followed the occupation of farming, many of them having become prosperous farmers, and others have been successful in commercial pursuits.

There is a constant and increasing demand for juvenile labour of this class, particularly in the farming districts, so that the various agencies have no difficulty in finding employment for the children as soon as they arrive in the country.

Appended may be found a statement showing the number of applications for children recorded at the principal receiving and distributing homes during the year ended June 30, 1902.

Under the heading of Government Inspection, I find the following in the February number of *Ups and Downs*, published under the auspices of Dr. Barnardo's Homes :—

‘We regard it as an eminently right and wise step on the part of the government, in view of the importance of the child immigration movement and the necessity for safeguarding it from abuses, to place this particular branch of immigration under the direct oversight of one specially appointed officer, with powers of supervision over all those engaged in bringing out and placing children in the Dominion. The establishment of this inspectorship is a boon for which we have occasion to be grateful to the present government.’

The children who have come under my inspection this year have been found to be generally both physically and mentally satisfactory, and in my opinion well suited for Canadian farm life. I have reported upon them individually and with a due regard to their physical condition, general behaviour, and the character of the situations provided for them. Copies of such reports are transmitted in due course, to the Local Government Board in England.

I might here state that the Local Government Board deals only with those children who have been inmates of institutions supported by funds derived from the taxpayers, and the children sent to Canada from these institutions are placed in charge of the various philanthropic societies to whom the Board of Guardians grant varying sums of money to pay for the expense of their emigration to Canada.

During the past year I visited children in many sections of the older provinces of the Dominion and have found them, with few exceptions, giving general satisfaction and adapting themselves to their new life and conditions. In the main, their general behaviour has been satisfactory, and altogether I find that they are making good progress. In this connection Dr. Barnardo reports as follows :—‘Hardly two in a hundred of our previous emigrants have disappointed the hopes with which they were sent out—

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over ninety-eight per cent have succeeded.' I am also advised by the other agencies that the percentage of failures amongst their emigrants has been insignificant.

As has been previously indicated, the selection of homes and situations is of paramount importance. I am pleased to be able to report that good judgment has been exercised, and I have found, as a result, few children discontented, and changes less numerous than might be expected.

I have visited as many of the Receiving and Distributing Homes as my time would permit, and my reports may be found appended hereto. I may say that these homes are maintained at no inconsiderable expense. The cost of their maintenance is almost entirely met by the support of friends in Great Britain, and as far as I have been able to ascertain, no assistance, financial or otherwise, is received or solicited from any source in Canada, beyond the bonus of two dollars per capita paid by the government on children from private homes and schools in Great Britain.

The persons who have undertaken the responsibility of receiving and distributing the children in Canada have, I find, a very real interest in their success, and I am pleased to be able to report, therefore, that the work is thoroughly and efficiently carried on, and every endeavour is put forth to guard the best interests of the children and of their employers. No employer is expected, after giving reasonable notice, to keep a boy or girl who may not prove to be satisfactory.

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STATEMENT showing the number of juveniles emigrated to Canada during the past fiscal year by some of the principal societies and the number of applications received for such children, also the number placed in homes and situations :—

Society or Agency.	Number of Children Emigrated.	Number of Applications received.	Average Age.	Number of Children Placed and Re-placed.	Remarks.
			Years.		
Mrs. Birt— Knowlton	139	1,056	5 to 14	201	
Miss Macpherson— Stratford	56	406	10	51	
Dr. T. Bowman Stephenson— Hamilton	53	373	12	51	
Church of England Society— Miss Rye, Niagara-on-the-Lake . . .	41	365	9 and 13	37	
Mr. J. W. C. Fegan— Toronto	106	300	14	106	Estimated between 300 and 400.
The Andrews Home— Montreal	5	10	16		
Bristol Emigration Society— St. John, N.B.	23	115	13	23	
Rev. Robert Wallace— Marchmont, Belleville	79	785	12	138	
Mr. Middlemore's Home— Halifax	118	200	10	118	
Canadian Catholic Emigration So- ciety— Ottawa	89	244	13	183	
Liverpool Catholic Children's Protec- tive Society	45	*		*	* Not reported.
Church of England Society— Sherbrooke	59	125	14	59	
Dr. Barnardo— Toronto, Peterborough, Winnipeg, Russell	903	5,600	11	903	
Shaftesbury Home— Winnipeg	5	12	15	7	
Total	1,721	9,591		1,877	

MRS. BIRT'S DISTRIBUTING HOME, KNOWLTON, P.Q.

One hundred and forty-five children were emigrated to Canada through this agency during the year 1900-1901. Previous to their emigration the children receive general training in Mrs. Birt's Sheltering Home, Liverpool. Each child is provided with a good supply of clothing sufficient for, at least, one year's requirement. The children are invariably placed in approved homes and under definite terms, which are stipulated in an indenture. The children are visited regularly, and every effort is, I

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believe, made to maintain a proper oversight of them. Reports on their progress are individually made and are systematically kept at the home. I have inspected a number of the children this year and have found them well placed, healthy and giving general satisfaction. Mrs. Birt frequently visits Canada, and keeps in close touch with the Canadian work.

This home is well located, its situation being both healthy and pleasant. It is under efficient management.

MISS MACPHERSON'S HOME.

I paid my annual visit to Miss Macpherson's Home, Stratford, Ontario, on November 18, 1901. The superintendent had just left for England, but I found a very efficient staff of assistants in charge of the work. Forty-six children were received from Great Britain during the year, a decrease of ten in comparison with the figures of 1900. This party consisted of twenty-five boys and twenty-one girls, the youngest of whom was four and the oldest sixteen years of age. They were found situations and homes readily, as the demand was again during the past year much greater than the supply. I am advised that the children have been singularly free from sickness during the year. They have been regularly visited, and the reports received have been gratifying to the superintendent. I have reported upon several of them, and have found them to be in every way a desirable class of immigrants.

ST. VINCENT'S HOME, LIVERPOOL CATHOLIC CHILDREN'S PROTECTIVE SOCIETY, MONTREAL.

The first party of children reached Canada on May 4. At this date there were nine boys and one girl in the home, all of rugged appearance. The majority of the children are found homes and situations in the province of Quebec, while a few have been placed in eastern Ontario. The home throughout is very comfortable and is well kept. Miss Yates, who has for years been identified with the society's work in England, pays an annual visit to Canada for the purpose of visiting the children in their new homes.

CANADIAN CATHOLIC EMIGRATION SOCIETY, NEW ORPINGTON LODGE, HINTONBURG, ONTARIO.

This society has during the past few years extended its field of operation considerably. Formerly their children were placed, almost exclusively, in Quebec and eastern Ontario. Now, however, a number are annually located in western Ontario. The superintendent advises me that their operations of the past year have brought satisfactory results. The children are generally well settled and doing satisfactorily. They are placed only in approved homes, and are visited, at least, once each year by the superintendent for the purpose of reporting on their progress and comfort. There has been comparatively little sickness amongst their number during the year. I have found those of the children whom I have inspected this year healthy and robust, and on the whole, getting along very well in their new homes and surroundings. New Orpington Lodge, the Society's Distributing Home, is pleasantly situated and is comfortable and well maintained throughout.

DR. BARNARD'S HOMES.

Since the inauguration of Dr. Barnardo's work 12,131 children, the greater number of whom were boys, have been emigrated and placed in Canada. The number of arrivals during 1901 shows a gain over the record of any previous year in their history. Five parties, aggregating 1,013 children, reached Canada between the months of March and September. Notwithstanding the fact that such a large number was placed, not more than one-third of the applications received were filled. Mr. Alfred B. Owen, who has a general supervision over the work in Canada, states that the 20th season's operations

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have been most satisfactory, and that their visitors' (there are five in all) reports for the past year show that the children are doing remarkably well. I visited the head office and Distributing Home for Boys, Toronto, on November 7 and found only three boys there; these lads were to be re-placed at an early date. The superintendent advises me that the children are generally healthy, and that no serious or chronic ailment amongst their number has been brought to his attention. The behaviour of the children has been good, and comparatively few have changed situations on this account.

In addition to the ordinary plan of placing the children in service under indenture, a system of boarding out the younger emigrants has for some years been adopted by the Barnardo committee. Ten years ago, as an experiment, twelve young children were so disposed of, and the results were so satisfactory that the system has been adopted, which means the expenditure of a very large sum of money annually. At present there are about five hundred children boarded out. Children, who otherwise would have remained in the old country homes and schools until fourteen years of age, are now brought to Canada at the average age of eight years. The object of this plan is that the children may be trained to Canadian customs and educated in our rural schools until they attain an age at which they might reasonably be expected to be self-supporting.

I also visited 'Hazel Brae,' Dr. Barnardo's Girls' Home, Peterborough, on November 28. There were twenty-two little girls there awaiting the selection of suitable situations. They were all very neat and tidy and healthy in appearance. Their visitors' lists contain, approximately, the names of 1,200 girls as entitled to calls from their lady visitors. The staff of 'Hazel Brae' consists of a matron, secretary, two assistant secretaries, a stenographer and two lady visitors. The home is very efficiently managed, and a personal interest evinced in the comfort and well-being of the children under the supervision of the staff.

MISS RYE'S HOUSE, NIAGARA-ON-THE-LAKE, ONTARIO.

On November 11 I again visited this interesting home at Niagara-on-the-Lake. I found twenty-one girls in the home, nearly all of whom were very young and were being kept here for adoption. They were an exceedingly bright and healthy looking lot of children and neatly dressed. During their stay here they are being taught by a governess sewing, knitting and other useful household duties. A number of the girls are to remain here until the spring. In the meantime they will assist with the housework and attend the private school in connection with the institution.

No difficulty is experienced in obtaining suitable homes and situations for these girls, in fact, applications always keep far in advance of the supply. The matron informs me that the health of the children during the past year has been generally satisfactory. The home throughout is very conveniently arranged, and all the comforts of home are afforded the children.

DR. T. BOWMAN STEPHENSON'S RECEIVING HOME, HAMILTON.

I made my annual visit of inspection to this home on November 8, 1901. The governor states that the operations of the past year have been very successful. The children are well settled, and it was found unnecessary to change any of them from their original places. Their visitors' reports, a number of which I have perused, were very gratifying, and go to show that their boys are comfortably settled. I have inspected and reported upon some of Dr. Stephenson's immigrants during the past year, and have found them filling their positions with satisfaction to their employers. Two parties of children were received during the past year, and, with the exception of twelve little chaps, they were at once placed in approved homes. The home is very efficiently managed, and the governor is much interested in the work.

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MR. J. W. G. FEGAN'S HOME, TORONTO, ONTARIO.

On July 28 a party of forty-eight boys arrived at this home. Their ages averaged fourteen years. They were immediately placed with farmers in western Ontario under agreements extending over a term of years. Mr. Fegan's visitor, who happened to be at headquarters when I called, informed me that their boys are making good headway and are well treated by their employers. It is to be hoped that during the coming year Mr. Fegan may be able to increase his annual emigration parties, as the superintendent advises me that he has again this year been unable to supply the demand.

Mr. Fegan's Canadian work is well conducted, and the interests of the children are carefully looked after.

THE MARCHMONT HOME, BELLEVILLE, ONTARIO.

Under the direction of Rev. Mr. Wallace, of Marchmont, seventy-nine personally selected juvenile immigrants arrived in Canada during the past year. Mr. Wallace exercises reasonable care in distributing the children, and selects only such homes for them as have been previously recommended to him. The children were dispatched to their respective homes and situations without delay, as many of the applications had been filed for some time previous to their arrival in Canada. Each child is placed out under definite terms, in writing, and a proper supervision is maintained over them in their new conditions. I am advised that, with comparatively few exceptions, the children are giving good satisfaction. On the occasion of my visit to Marchmont, I found a few of the younger members of this year's parties there. They were bright, healthy and free from any physical defect. The children whom I have inspected and reported upon were found to be in advantageous homes and doing well.

Marchmont Home is well maintained. It is under the personal supervision of Rev. Mr. Wallace, who is thoroughly devoted to his work, and gives almost his entire time and attention to the needs and welfare of the children who have emigrated to Canada under his auspices.

Your obedient servant,

G. BOGUE SMART.

SESSIONAL PAPER No. 25

REPORTS OF IMMIGRATION OFFICIALS IN WESTERN CANADA

No. 1.

REPORT OF THE COMMISSIONER OF IMMIGRATION.

WINNIPEG, June 30, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I respectfully submit a report of the transactions of my office for the fiscal year ending June 30, 1902.

In the following tables the immigration recorded at this office for the past fiscal year is set forth, and for purposes of comparison a table for the fiscal year ending June 30, 1901, has also been attached. Some other statistics are also given of previous calendar years, together with other trustworthy information of nationalities, sexes, occupations and distribution of immigrants.

The total immigration recorded at this office for the past fiscal year is 55,261 as against 32,005 for the fiscal year immediately preceding. From these 55,261 must be deducted the departures en route for the western and Pacific states, 1,089, for western Ontario, 1,085, and for the Yukon, 268—being a total of 2,442 souls, leaving the net recorded settlers at 52,819. To these 52,819 must be added a percentage for unrecorded immigrants who came in at various points, largely by wagons, moving into Manitoba and the North-west Territories as immigrants formerly did from the eastern to the western states. This feature is particularly noticeable in connection with the movement from the state of Utah to Alberta; and, in view of the very large movement that has taken place from the Dakotas into the southern part of Manitoba and Assiniboia by way of wagon roads, there is every justification for continuing to add as due to that source 25 per cent to the arrivals recorded in this office. Our returns of arrivals at immigration halls continue to show a surprisingly large number who are not reported by any of our agents on any line of railway. This percentage gives an additional 13,205 souls, or a total net increase by immigration of 66,024 to the population of western Canada during the fiscal year now closed, of whom 4,895 settled in British Columbia. Of the total number of immigrants recorded here, about 12 per cent were English, $\frac{1}{4}$ per cent Welsh, $5\frac{1}{2}$ per cent Scotch, $2\frac{1}{4}$ per cent Irish, 27 per cent Canadians (including 2,102 returned Canadians), 15 per cent American-born. This percentage of United States immigration was nearly 40 per cent of the whole.

The annual statements of the various immigration agents, land guides and other officials directly connected with the work of this office in western Canada are incorporated in this report.

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TABLE No. 1.—Recapitulation and distribution of Immigrants reported

Months.	NATIONALITY.												
	Austrians.	Arabs.	Belgians.	Bohemians.	Chinese.	Canadians.	Returned Canadians.	Dutch. Dunkhobors.	Danish.	English.	French.	Finnish.	German.
1900.													
July.....	1	9				503	30	1	262	20	28	275	10
August....	1		1			700	14	12	175	2	15	137	30
September..	4	2				607	16	1	26	202	27	13	104
October....	21					427	17	1	200	3	17	83	1
November...	6	1				358	46		73	19	8	172	1
December...	2					233	9	14	46	3	21	101	8
1901.													
January.....			1			213	8	1	30	8	13	9	15
February....	3	4				344	58		79	3	18	3	12
March.....	6	63	1	1		2,041	337	8	232	10	40	171	5
April.....	12	6	4			1,647	420	39	619	24	59	395	
May.....	38	5	9			1,033	268	5	28	677	24	54	434
June.....	15	9	1			498	145	33	297	62	42	367	1
Totals.....	109	1	99	16	1	8,604	1,368	6	163	2,892	205	328	2,251

Months.	VIA											
	Ocean.				United States.				Canada.			
	Adults.		Under 12.		Adults.		Under 12.		Adults.		Under 12.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1900.												
July.....	957	708	630	518	138	102	78	65	165	158	98	90
August.....	408	308	200	143	222	74	42	45	275	232	108	81
September...	440	162	121	85	133	67	56	45	233	189	99	83
October.....	303	189	111	78	186	120	99	97	120	170	72	69
November...	161	102	80	67	97	44	27	38	99	146	66	61
December...	134	59	34	34	39	10	8	6	89	87	29	32
1901.												
January.....	86	22	8	8	58	27	27	13	95	82	26	22
February....	94	34	14	15	262	81	70	49	215	94	34	30
March.....	410	99	64	60	811	352	250	268	1,083	463	275	220
April.....	1,069	339	251	215	971	427	319	293	899	365	203	214
May.....	1,302	580	358	330	848	271	174	188	526	284	171	131
June.....	1,197	756	588	474	630	227	159	147	217	164	74	72
Totals.....	6,591	3,358	2,459	2,027	4,395	1,802	1,309	1,254	4,016	2,434	1,255	1,105

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at Winnipeg during the fiscal year ending June 30, 1902.

NATIONALITY.

Half-Breeds.	Hollanders.	Hungarians.	Irish.	Italians.	Icelanders.	Latvians.	Newfound-landers.	Negroes.	Norwegians.	Persians.	Portuguese.	Polish.	Ruthenians.	Romanians.	Russians.	Swedish.	Swiss.	Syrians.	Scotch.	Slovaks.	Tourists.	United States.	Welsh.	Total.
1	3	44	49	415	90		6		118			27	248		29	67			146			383	7	2,821
1	3	12	55	555	162		3		40			26	201		9	73	3		193			391	4	5,674
2	2	18	66	25	24		3		73			3	98	4	31	70	1	1	116			355	11	2,234
		47	51	28	24		2		58			2	21	1	32	108	3		87	2		427	2	2,191
		35	52	18	56		1	1	106			19	26		19	52	2	14	144			496	18	2,309
		35	35	33	6		1	1	47			21	52	25		59		2	151	10		231	7	1,552
1		19	60	58	21				45			6	27		7	43			74			284	4	1,166
		32	61	53	1				73			11	35		3	49			102			411	21	1,655
1		133	203	238	10	4	3		143				66		13	204	2		275	12		1,204	24	7,248
		376	220	74	29		2		418			27	382	22	59	481	9		613	4		1,414	52	9,855
6		138	201	191	111			2	539	2		38	3,012	62	73	395	24	3	540	22		1,178	16	10,652
5		90	134	186	83			2	593	2		126	1,540	3	60	327	1	2	462	9	166	1,009	220	7,904
1	19	969	1,187	1,874	617	4	21	6	2,253	2	2	306	5,708	117	335	1,858	45	22	2,903	59	166	7,783	386	55,261

OCCUPATION.

DESTINATION.

Farmers and Farm La- bourers.	General Labourers.	Mechanics.	Clerks and Traders.	Miners.	Female Servants.	Not Classified.	Total.	Yukon.	Ontario.	Manitoba.	North-west Territories.	British Columbia.	United States.	Total.
800 2,645 811 823 945 585	551 871 187 123 54 36	132 255 59 78 36 24	34 118 45 53 52 36	66 71 56 37 50 49	..... 5 4 1 2	1,238 1,709 1,076 1,073 1,171 820	2,821 5,674 2,234 2,191 2,309 1,552	26 50 21 4 1	67 83 28 81 36 14	1,207 2,778 732 682 645 612	994 2,402 1,101 1,151 1,262 732	527 361 352 303 366 193	..... ..... ..... ..... ..... .....	2,821 5,674 2,234 2,191 2,309 1,552
511 769 3,393 4,761 4,527 3,368	51 111 421 433 963 696	38 59 152 256 215 146	22 32 100 168 100 93	60 56 142 84 82 62	..... 6 3 22 133 50	484 622 3,037 4,131 4,632 3,489	1,166 1,655 7,248 9,855 10,652 7,904	15 2 50 16 62 21	12 38 66 210 339 96	333 499 2,559 3,539 4,971 2,957	642 866 4,056 5,296 4,183 3,755	164 235 517 794 666 417	..... ..... ..... ..... 431 658	1,166 1,655 7,248 9,855 10,652 7,904
23,938	4,497	1,450	853	815	226	23,482	55,261	248	1,085	21,484	26,440	4,895	1,089	55,261

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TABLE No. 3.—Showing the number and sexes of arrivals reported at Winnipeg during the calendar years ending December 31, 1897, 1898 and 1899.

Port.	1897.			1898.			1899.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Winnipeg.....	6,705	4,159	10,864	19,015	8,842	27,857	21,496	14,679	36,175

TABLE No. 4.—Showing the number and sexes of arrivals reported at Winnipeg during the fiscal years ending June 30, 1900, 1901 and 1902.

Port.	1900.			1901.			1902.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Winnipeg.. . . .	19,016	12,494	31,510	20,013	11,992	32,005	38,746	16,515	55,261

TABLE No. 5.—Showing the nationality of arrivals reported at Winnipeg during the calendar years 1897, 1898 and 1899.

Nationality.	1897.	1898.	1899.
England and Wales.	1,519	3,203	2,833
Ireland	69	266	270
Scotland	205	701	613
Canada, including all the provinces.	2,573	13,112	11,591
United States	712	2,643	2,233
Scandinavia, viz.: Norway, Sweden and Denmark.	474	532	769
Icelanders			364
Germans from Germany, Austria and Russia.	520	998	1,405
France and Belgium	388	368	273
Ruthenian: Galicians and Bukowinians	4,363	5,509	7,181
Other countries	246	525	8,643
Totals	10,864	27,857	36,175

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TABLE No. 6—Showing the Nationality of Arrivals reported at Winnipeg during the fiscal Years ending June 30, 1900, 1901 and 1902.

Nationality.	1900.	1901.	1902.
England and Wales.....	2,567	2,962	6,665
Ireland.....	293	340	1,187
Scotland.....	475	952	2,903
Canada.....	11,433	8,604	12,530
United States.....	3,791	6,565	7,783
Scandinavia, viz.: Norway, Sweden and Denmark.....	718	2,501	4,462
Icelanders.....	446	1,063	617
Germans from Germany, Austria and Russia.....	1,443	2,251	5,647
France and Belgium.....	362	304	554
Ruthenian: Galicians and Bukowinians.....	5,648	5,050	5,708
From other countries.....	4,134	1,373	7,205
Totals.....	31,510	32,005	55,261

DEPARTURES.

Our immigration has continued from an increased number of sources, and it is gratifying indeed to observe that very few who moved to Western Canada are dissatisfied with the country or the conditions by which they find themselves surrounded.

As has been our practice in the past, the travelling agents on the railways are not only required to report all intending settlers, but must report all who express their intention of leaving Canada and not returning. From these reports, and from other information which has been sought in all available quarters, it does not appear that more than 110 souls in all have so departed by these railways. It is, of course, possible that some who came in by wagon have also left, but the number, if accountable at all, must be infinitesimally small. During the past fiscal year I had occasion to make special inquiries upon this point from the various boards of trade in Western Canada and customs officials at the boundary, besides the agents of the department, and the consensus of opinion expressed by those whose opinion was asked, is that the departures from Canada during the last five years have been only a minute fraction of one per cent.

This satisfactory result can be credited to the excellence of the country, but I am of the opinion that the staff of agents and land guides in the outside service are entitled to official appreciation for their evident care in placing immigrants.

IMMIGRATION FROM GREAT BRITAIN AND IRELAND.

The immigration from the United Kingdom during the past fiscal year shows (particularly with reference to the first six months of 1902), a considerable increase, which is very gratifying. From England we received 6,279; from Wales, 386; from Scotland, 2,903, and from Ireland, 1,187; a total recorded British immigration of 10,768 as against 4,294 for the previous fiscal year—an increase of nearly 150 per cent. A large number of these people were young men seeking experience in Western Canada with the view of entering finally into agricultural operations for their own benefit, and were all readily placed with farmers immediately on their arrival.

IMMIGRATION FROM THE EASTERN PROVINCES.

During the past fiscal year 12,530 Canadians arrived in Western Canada from the older provinces, and in addition 2,102 Canadians who had been residing for a number of years in the United States have again made Canada their home.

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The bountiful harvest of 1901, required a very large number of farm labourers to assist in saving the crop, and from the returns of the railway company it would seem that about 19,700 harvest hands were carried from Eastern Canada into Western Canada during the harvest season of 1901, and of this number probably 3,800 remained in Western Canada. The demand for such labour was so great that all those who desired work secured the same immediately, and any little friction or congestion there may have been at points on the main line was speedily removed through the efforts of the railway company and the officials of the governments interested.

FRENCH CANADIANS.

Mr. Léon Roy, our French interpreter, states in his report for the fiscal year that 555 French Canadians arrived in Western Canada from the United States (including thirty families from North Dakota), and 416 from the lower provinces, making a total French Canadian immigration into the west of 1,001 souls, an increase of 281 over the previous fiscal year. It was very manifest during the whole of 1901 that many French Canadians who had left Canada for the United States were desirous of returning to Canada, and the additional efforts put forth by the department to induce these sons of Canada to return home have met with satisfactory results during 1902.

In addition there arrived from Europe—

Belgians.....	184
French.....	370
Swiss.....	45
	<hr/>
	599

The 1,600 souls above referred to were distributed as follows :—Yukon, 9 ; Ontario, 5 ; Manitoba, 691 ; North-west Territories, 772 ; British Columbia, 123.

The district lying between Lake Winnipeg and Lake Manitoba is now being opened up. Officer Roy, with others of the staff, has been successful in showing the advantages of this newly opened country lying almost at the very doors of the city of Winnipeg, and in view of the large amount of territory which is yet to be opened in the same district, there is ample room for many thousands of this class of farming population.

AMERICAN IMMIGRATION.

Our recorded immigration from the United States, aside from returned Canadians, was, during the past fiscal year, 19,570 souls, nearly all of the male adults being practical farmers, and, indeed, by far the larger proportion of the total number arriving being adult males, and as they were all satisfied and acquired land, it is but reasonable to suppose that they are but the advance guard of families which will follow at an early date in large numbers. I would further add that the close contiguity of the American States to our southern boundaries permits the entry of very large numbers by wagon rather than by one of the three or four railways which cross the boundary line between the great lakes and the coast, and 25 per cent at least should be added to the record of American immigration in order to bring the figures to anything like the real facts.

During the year American land companies and other investors have found it to their interest to acquire large tracts of land in the Canadian west, and as it appears in a good many cases that these same people are selling the farms of residents in their various states, and transplanting the farmers to other land in western Canada, any objection there may have been to the disposition of large blocks of land is, under the circumstances, to a large extent disposed of. The large number of American farmers whose attention had been drawn to Canada during the previous fiscal year, has very largely increased, and it is safe to say that during the year now closed Canada has been

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advertised in such a way as to insure a steadily increasing stream of desirable immigration for many years to come.

ICELANDERS.

During the past fiscal year 617 Icelanders came into western Canada, 368 being from Iceland and 249 from the United States. These people are fully equal to those who have preceded them, and adequately maintain the reputation they have made for easily assimilating with Canadian institutions, and, indeed, there are very few fields in professional and public life in which these people have not shown themselves capable of taking an active part with credit to themselves and the public interests.

During the year the department sent to Iceland Mr. Bjorn Johnson and Mr. Svein Brynjolfson, and under the efforts of these two agents then put forth it is confidently expected that the emigration propaganda in Iceland itself will be even more successful than in the past.

There is a growing feeling, however, that it is advisable that newer settlements of Icelanders should be located in other parts of Western Canada than those at present existing, and Mr. W. H. Paulson, our Icelandic interpreter, will be charged with the location of the same.

During the spring of 1902 a few Icelandic families (about fifty souls in all) left for a point on the Pacific coast in the United States, a few miles south of New Westminster, B.C., where they claim they prefer to be rather than inland. Such spasmodic movements have taken place among these people before, but they were usually glad to return in a short while. Those above mentioned were successful in Manitoba, and the desire for a change seems to have been the primary and only cause of the movement.

SCANDINAVIANS.

Mr. J. W. Wendelbo, who has been Scandinavian interpreter for the department for a large number of years, left the public service in the fall of 1901, returning to Denmark, where he is engaged in business. He was succeeded by Mr. A. Hallonquist, whose report says that during the fiscal year 1,858 Swedes arrived in Western Canada, an increase of 1,178 over the previous year. Of Norwegians there have arrived 2,253, an increase of 1,658 over the previous year. The immigration of Danes has not been as large as desired, being only 351 souls, but that figure is an increase of 188 over the year before. There is no doubt the increase in the immigration above mentioned is due to the fact that Canada is rapidly becoming known to the Scandinavian people as a favourable field in which to secure a new home, and I am pleased to note that those Scandinavians who have been here for some years are now sending for their friends, thus proving that a contented people in a good country appreciate the fact and can readily induce their friends to follow.

The Scandinavians succeed well on the new farms; they are well satisfied and are giving to the newcomers a helping hand, and I am glad to offer this note of appreciation. During the year possibly ten per cent of those Scandinavians who arrived in Canada from the other side of the Atlantic went through to the States; they had friends there and came this way to secure cheaper railway fare; but I have great hope their friends here will induce them to eventually make their home in Canada.

The Scandinavian population have been a very desirable acquisition and make first-class settlers. About 50 per cent have gone on land immediately on arrival, while others have secured work through this office with farmers or on railway construction.

There is great demand for domestic servants, and large numbers of Scandinavian servant girls could be readily employed at wages of from \$10 to \$15 per month if they were available.

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GERMANS.

Mr. Charles A. Jones, German Interpreter, attached to this branch of the public service, makes a report covering German speaking arrivals from Germany, Austria, Russia, Switzerland and the United States, and shows that more than double the number arrived than during the previous fiscal year. The steady increase which has been taking place for the last four or five years is conceded to be a good omen of what is to come in the future, and must be considered as largely the result of the success obtained by German speaking arrivals who came here some years ago. Many of them arrived with very little funds, but their steady industry enabled them in a surprisingly short time to send funds for the travelling expenses of their friends in Germany, Austria and Russia. The land speculator of the United States having land to sell has been a difficulty to get over in connection with these people, but owing to the splendid natural character of Western Canada, the land speculator has been forced into the position of an immigration agent for Canada instead of the reverse. Like other branches of the immigration service the work in connection with these people has been very heavy, and has rendered it almost impossible to give to it the minute attention its importance deserves.

The total immigration during the fiscal year of German speaking settlers amounted to 5,647 as against 2,251 in 1901. Of the first above named figures perhaps 500 have gone to the United States, that having been their declared destination on landing in Canada. The remarkable increase in the German immigration has prevented our German officers from visiting the colonies during the past twelve months—a circumstance which is to be regretted, but it could not be avoided.

RUTHENIANS (GALICIANS AND BUKOWINIANS).

The Ruthenians (or Little Russians) that have arrived in the Canadian Northwest this season have been practical farmers, or farm labourers, and, for the most part, settled immediately on homesteads near the older settlements of their own people. Of these agriculturists 5,708 arrived during the year, and it is pleasing to note that the good reports sent by the other settlers are having the effect of bringing new arrivals of the better class. Some of the families of Ruthenians who left Canada in 1897 have returned from the United States, to be followed shortly by the balance of the party.

Three hundred and six Poles arrived during the season and settled with the Ruthenians or went to farm or other work.

The total number of Ruthenians, Poles, Russians and Slovaks arriving during the past fiscal year is 6,125, distributed as follows :—

Edmonton....	1,157
Rosthern....	542
Yorkton....	680
Grenfell....	180
Sifton, Ethelbert and Dauphin....	714
Stuartburn....	325
Pleasant Home and Gimli....	480
Shoal Lake and Huns Valley....	305
Galician settlement near Winnipeg....	180
Winnipeg....	1,562

With reference to the 1,562 destined to Winnipeg, it appears that nearly all are men (Ruthenians) who arrived here without their families. These have all been sent throughout the country to work, and expect after a time to send for their families.

The work of officer Genik and his assistant Philip Harvey has necessitated continuous action and good judgment on their part.

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HUNGARIANS.

As appears from the report 969 Hungarians arrived in Western Canada during the past fiscal year. They were settled generally at Kaposvar and Esterhaz, near White-wood, or in the new colony of Mathiasfold, near Rosthern in Saskatchewan. These people are progressing very satisfactorily and they expect large numbers of their friends during the balance of this year.

DOUKHOBORS.

I am pleased to be able to report that those villages of these people situated in the Saskatchewan colony have progressed wonderfully during the past year; they are rapidly becoming Canadianized in many ways, and the acreage under crop is much larger than it ever has been before. Their cattle are in first-class condition, and the people themselves have found it necessary to stay on their farms and attend to agricultural pursuits rather than seek employment on railways and elsewhere. This is an evidence in itself of their progressive and stable character as agriculturists.

I regret not to be able to report a satisfactory condition of affairs regarding those people situated in the Yorkton and Swan river colonies, where it appears the presence of a Russian socialistic agitator has, to some extent, disturbed the people in their avocations, and may prevent a number of them from showing as good returns for their labour as they otherwise would have done. These people are industrious, frugal and honest, and it is greatly to be regretted that certain foreign agitators have succeeded in disturbing their friendly intentions regarding the Canadian institutions and regulations of the various departments.

MOLDAVIANS.

The first settlement of these people has been followed by another fairly large party who have augmented the settlement north of Qu'Appelle. The detailed report of our inspector shows that a large number of these people have taken up their homesteads, have erected houses and broken a small quantity of land on each homestead, which broken land has been cultivated during the present season. Those men of the party who are unmarried were for the most part found work in the vicinity, and while it is true they had little means to commence with, yet it is also true they have succeeded thus far without incurring debt of any consequence. A few discontented ones have moved away, but they have left the colony all the better for their departure. With care and perseverance these people will make good and useful settlers in the portion of Assiniboia where they are now settled, and it is to be hoped in a few years will emulate the good example set by their co-religionists in the Hebrew colony at Wapella.

SETTLEMENTS GENERALLY.

The immigration during the past fiscal year has been marked by a great scattering of the people in so far that although the larger settlements have been very materially increased, many immigrants have settled in very many newer parts of the North-west Territories, thereby making the work of the department somewhat more arduous than in previous years. No objection, however, can be taken to this fact because the intermingling of the various classes of agriculturists is admitted to be the highest form of improvement. I am pleased to say that the whole of the settlements in Manitoba and the North-west appear to be in a progressive and entirely satisfactory condition.

HEALTH.

As might naturally be supposed, the increased quantity of travel would entail additional cases of sickness, but it is pleasing to note that of the many thousands who have

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passed through the offices of the Immigration Department so few have failed to respond to the skilful medical treatment of the physician in charge.

Dr. Corbett has had charge of the inspection of all trains coming from the east, and also the general health of the inmates of the Immigration Hall in Winnipeg. During the fiscal year he made 441 visits to the hall and gave medical attendance to 256 cases of sickness. He visited every train at some point between Selkirk and Fort William, and carefully inspected all incoming immigrants for infectious and other diseases, and found that measles was the most prevalent disease and confined to children. In the month of March a case of small-pox was discovered in the hall, the afflicted one being a destitute immigrant travelling to another part. In the course of a few days three other members of the same family developed the disease. They were isolated, and I am pleased to report that all recovered. In the month of May a little English girl was found to be suffering from small-pox which she contracted on the ocean. The family were quarantined and the little child made a good recovery. It is pleasing to note that, notwithstanding small-pox was on two separate occasions brought into the hall from outside points, and notwithstanding the fact that the officials and the inmates are in danger of exposure to diseases of all kinds, no officer or other inmate of the hall contracted any infectious disease.

Generally speaking, the health of the various colonies throughout the interior is good, and the sporadic outbreaks of infectious diseases that were mentioned in the previous report appear to have been effectually obliterated during the last fiscal year.

DOMESTIC SERVANTS.

During the fiscal year 74 girls were brought out by Mrs. Sanford from the United Kingdom, and were all placed in desirable homes immediately on their arrival, and are giving general satisfaction. The thorough experience and kindly interest of Mrs. Sanford have enabled her to carry on this work with pleasure to herself and the girls whom she has placed. The demand for this kind of help has in no way abated, and there is likely to continue a demand for domestic servants for many years to come. The necessity for securing help in the homes of citizens has been to some extent met by utilizing the service of Galician girls, who show themselves to be thoroughly domesticated, and become Canadianized at a very rapid rate. When it is considered that nearly 1,200 Galician domestic servants are now assisting in the homes of Western Canada, one is forced to the conclusion that they are indeed a factor in supplying the requirements of help of this kind. I would recommend that every assistance possible be given to those desiring to bring suitable girls for domestic service from the United Kingdom and the continent.

FARM HANDS AND EMPLOYMENT BUREAU.

This branch of service is increasing tremendously. The people of Western Canada realize and appreciate the convenience the government have placed at their disposal by having this bureau in connection with immigration work, and at no time during the year have we had a sufficient number of labourers to supply the demand. During the fiscal year 1,951 incomers applied for farm employment and personally registered at this office, 1,141 of whom were English, 280 Scotch, 106 Irish and 23 Welsh; the remainder of the applicants being mostly German and Scandinavian. About 1,600 were placed through our Labour Bureau. In the same period 1,840 applications were received from farmers in the province and territories for experienced hands; 1,132 for inexperienced hands, 135 for experienced married couples, and 448 for female domestic and farm servants. About 60 married couples registered here and were furnished with employment.

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The large number of desirable young men from Great Britain sent into Western Canada by Mr. Wm. Weeks (probably 300), and 239 brought in by Mr. Robert Adamson are not included in the above computation of persons securing employment.

In addition to the foregoing, a very large number of Galicians, Doukhobors and others used to manual labour were aided by this office to various employments, mainly on the railway, though a large number preferred to work for the farmers during the harvest time. These men demand the same rate of wages as any other nationality, and readily absorb Canadian ideas and usages.

It would appear from reports from the various districts that the agents of the department throughout the west have been instrumental in bringing together the labourer and the person desiring to employ him.

ADAMSON LABOURERS.

Mr. Robert Adamson reports that during the year he brought out with him on his several trips of selection the following :—

Experienced farm hands (unmarried).....	211
Experienced farm hands (married).....	5
Wives of latter.....	5
Children of latter.....	4
Inexperienced men (unmarried).....	12
Inexperienced men (married).....	1
Wife of latter.....	1
Total.....	239

The nationalities of these being—

English and Welsh.....	18
Scotch.....	214
Irish.....	7
Total.....	239

All these persons were immediately and satisfactorily placed, and appear to give general satisfaction as evidenced by a demand for more of the same class. Mr. Adamson finds that the advance of passage money made in most applications by the intending employer is accepted by the intending emigrant as a guarantee of the good position of the farmer, and is sometimes accepted by those who are well able to pay their own passage-money. The method of obtaining and selecting experienced farm hands for farmers in Western Canada adopted through Mr. Adamson's agency might be extended with much satisfaction and assurance of success.

DELEGATES.

During the past fiscal year 465 American delegates passed through our hands on an extended and critical examination of Western Canada, and these, without exception, have reported in the most favourable terms regarding what they have seen. The great agricultural states of the American union, Nebraska, Kansas, North Dakota, South Dakota, Minnesota, Iowa, Indiana, Ohio, Illinois, Wisconsin, Missouri, Michigan and others, send these people to look over our country, and to their satisfactory reports must be largely attributed the very substantial increase in American immigration. Indeed, it appeared to be the general statement of these delegates that the people of the United

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States had no idea that there was a country north of the international boundary one-fourth as good as it appeared to them to be, and they returned to give expression to their opinions amongst their friends and also, I am pleased to say, to express their gratification at the courtesies extended by the railway companies and the government officials.

WINNIPEG DISTRICT VACANT LANDS.

With the advent of increased immigration, and particularly of those from the United States with means, the lands in the Winnipeg district have been increasing in value and changing hands to such an extent that it has been practically impossible to keep track of them. It is estimated that from 750,000 to 1,000,000 acres of land have changed hands in the Winnipeg district (a radius of 30 miles about the city) during the last fiscal year, and the average price would not be less than \$6 per acre. The low-priced lands have advanced from one hundred to two hundred per cent, and the better or higher priced lands have advanced to the satisfaction of the holders but are yet far below their actual value. So much is the latter statement a fact that the opinion of the real estate men is that ordinary priced land will advance 50 per cent within the next twelve months.

IRRIGATION.

It would not appear that the irrigation canals have been used in Southern Alberta during the past year, but their presence gives a confidence to farming operations in that district which will repay the added cost of these works.

RAILWAY EXTENSIONS.

I am pleased to report that there has been during the last year considerable railway building in Western Canada. The Canadian Pacific Railway Company are building north-westerly from Elkhorn in the direction of the Pheasant hills, a distance of 100 miles, passing through a district which is rapidly filling up, and which it is predicted, before the end of the present calendar year will not have a single homestead left vacant for entry. This branch of the railway, if extended to Craven and also to Saskatoon and beyond, will open an immense territory of fertile country, and meet the requirements of the large numbers of settlers that are already making their homes along the prospective route.

The Canadian Northern Railway Company have under construction a considerable extension of their main line running westerly from Dauphin through The Gap and across Quill Plains to the Saskatchewan river, and throughout the whole length of this railway the land is very desirable and fit for immediate settlement. Indeed, in case of all railway extensions within the past year, settlement has preceded, to an unprecedented extent, the construction of the railway itself. I desire to point out, however, that these prospective extensions are not nearly sufficient to meet the immediate prospective demands. Many hundreds of homesteaders have settled one hundred miles and over east of Edmonton, and at other points east of the Calgary and Edmonton railway they have located sixty and seventy miles away, and without railway accommodation when these people have products to ship their ultimate prosperity would be seriously interfered with. As will appear by the statistics given in this report, the movement of immigrants appears to be largely and steadily increasing each year, requiring larger and better railway accommodation in similar ratio.

RAILWAY COURTESIES.

It is a pleasure to me, as well as a duty, to report that in the conduct of our immigration business the railway companies interested have afforded satisfactory trans-

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portation facilities, and by prompt transport and delivery of stock and effects have generally materially assisted the efforts of the department.

CROPS.

A much larger area is under crop in Western Canada than ever before.

In Manitoba.

	Acres.		Acres.
Wheat..	2,039,940	Increase over previous year.	28,105
Oats..	725,060	" " ..	35,109
Barley..	329,790	" " ..	138,781
Flax..	41,200	" " ..	20,222
Rye..	2,559	..... (not given)	"
Pease..	1,596	.....	"
Corn..	2,205	.....	"
Brome..	12,485	.....	"
Potatoes..	22,005	Decrease under previous year.	2,424
Roots..	12,175	Increase over previous year...	1,961

Making a total area under grain crops, 3,135,990 acres.

And the total area under all crops, 3,189,015 acres.

The following table for convenience of reference gives a comparison of the area in crop in Manitoba for the three years :—

	1900.	1901.	1902.
	Acres.	Acres.	Acres.
Wheat	1,457,896	2,011,835	2,039,940
Oats.....	429,168	689,951	725,060
Barley.....	155,111	191,069	329,790
Flax.....	20,437	20,978	41,200
Potatoes.....	16,880	24,420	22,005
Roots.....	7,482	10,214	12,175
Total crop area	2,122,500	2,961,469	3,189,015

Comparative Statement of Area in Crop in the North-west Territories for the last five years.

	Wheat.	Oats.	Barley.
	Acres.	Acres.	Acres.
1898.....	307,580	105,077	17,092
1899.....	363,523	134,988	14,276
1900.....	412,864	175,439	17,044
1901.....	504,697	226,568	24,702
1902.....	584,988	276,152	29,772

It is pleasing to observe the large increase in area under crop, especially in view of the fact that the enormous yield of 1901, to a large extent, in some districts prevented the farmers from preparing their land for the succeeding season.

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The abundant rains which have fallen throughout the whole of western Canada during the spring of 1902 have effectually dissipated any idea that our land is subject to drought, and the faith of students of the conditions of agricultural growth in western Canada is all the more firmly founded when the glowing reports are read of the condition of the crops now on the ground. In Southern Alberta the agents of the department report that never before have the crops looked so magnificent as they do this year, and except in a few low spots in various parts the same general excellent report has been received. On the day the last fiscal year closed, there was on exhibition in this office rye five feet high, speltz four feet high, wheat three feet high, and heading out, brome grass six feet high without the roots, and other grains and grasses exhibiting a magnificent prospect of a bountiful harvest; and if the present favourable conditions are realized western Canada will require fully as many harvest hands from the outside as it did last year.

EXHIBITS.

A large amount of money has been expended during the last fiscal year in securing and distributing a sufficient supply of grains, grasses, vegetables, wood, coal, fruits and specimens of other natural products of western Canada. These have been supplied for many agricultural fairs in the United States, and for use in various exhibitions in the old country, and owing to the greater desire for knowledge that is being exhibited regarding western Canada, the demand for exhibits of all kinds has been rapidly increasing, and there is no better immigration material than first-class specimens of crops.

The erection of the coronation arch in the city of London, composed largely of grain from western Canada, must, of necessity, prove a splendid advertisement, and turn the attention still more strongly towards western Canada.

Advantage was taken of the presence of a large number of United States citizens at the Winnipeg Industrial Fair, and those desiring same were freely supplied with literature and very many of them volunteered names and addresses of those who would be interested in receiving similar literature in their homes south of the boundary line. With an increased interest in our country, there must come an increased immigration.

ACCOMMODATION FOR IMMIGRANTS ELSEWHERE.

The Dominion Government have erected immigration halls at Saskatoon, Lethbridge, Moosejaw, Dauphin, Yorkton, Regina, Rosthern, Prince Albert, Calgary, and Strathcona, and have rented for the same purpose schoolhouses or other buildings at East Selkirk, Macleod, Saltcoats, Lamerton, Ponoka, Wetaskiwin, Birtle, Portage la Prairie, Qu'Appelle, Red Deer, Lacombe and Edmonton.

I have furnished suitable tent accommodation at the following points:—Sifton, Swan River, Winnipeg, Teulon, Osler, Dundurn, Saskatoon, Rosthern, Duck Lake, Alameda, Millet, Melfort, Olds, Didsbury, Ponoka, Wetaskiwin, Red Willow Creek, Dried Meat Lake, Duhamel, Vermillion River (Ronn's), Vegreville, Egg Lake, Milestone, Weyburn, Halbrite, Saltcoats, Devil's Lake and Estevan. Immigration during the last fiscal year has spread over a large area, and notwithstanding the large amount of accommodation provided, it may be necessary at any time in the near or distant future to provide some shelter at other points. This accommodation is not only a direct need for those going into new settlements, but to a new-comer with a large family and limited means these tents afford accommodation which is very much appreciated. Canvas tents do not last more than one or two seasons, and they are constantly being called in, repaired and replaced at great expense to the department.

TOWNSHIP REGISTERS AND MAPS.

The land indexes showing the identical homesteads entered for, through all the land agents, and the township plans of every district have been in daily request, and

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are of invaluable assistance. There is a great and crying need for maps of every part of the North-west Territories, and, in fact, every intending immigrant desires to be supplied with a map, which should be furnished by the department in large numbers. A map is properly considered an absolute necessity, and it is earnestly hoped that the department will furnish the same at once.

CORRESPONDENCE.

The number of letters received at this office during the year is 17,536, and those despatched numbered 18,161, a total of 35,697, in addition to 5,600 packages of literature.

RECORD OF ARRIVALS.

The checking of all intending permanent settlers by our agents on incoming trains affords good proof of the number of persons arriving in western Canada with the intention of residing permanently therein.

SYNOPSIS OF REPORTS OF IMMIGRATION AGENTS ON TRAINS.

Mr. J. M. McGovern, Travelling Immigration Agent, whose headquarters are at Port Arthur, experienced the large increase in immigration travel to such an extent as to require assistance from time to time. The additional number of trains passing through his hands now make his duties much more onerous than any previous year. The beneficial effect of having a skilled immigration agent travelling on all trains carrying immigrants is so fully appreciated as to recommend the extension of that system for the next season. New-comers are not acquainted with Canadian methods and the assistance of an agent would make their travel all the more pleasant and much more satisfactory from a departmental point of view.

Mr. D. W. Agnew, Travelling Immigration Agent, between Moosejaw and the boundary of the United States, reports that there passed through his hands during the year 10,985 souls, and the total number of cars of settlers' effects passing that point was 1,376. The crops are looking extremely well, and along the 'Soo' line new towns are springing up at each station, and by the time the crop is ready to be moved, Weyburn will have six elevators, Yellow Grass two, Milestone two and Pasqua two. At these places no elevators were in existence a year ago. Of the very large number of cars above reported, only seven car-loads have been returned to the States.

Mr. Samuel Gray, Travelling Immigration Agent at Lethbridge, Alberta, reports that during the fiscal year the number of settlers who came in over the Alberta Railway and Coal Company's line from the south, together with those who drove over country and registered at the customs offices in Cardston, Macleod, Maple Creek and Wood Mountain amounted to 2,456, made up as follows:—

Returned Canadians....	119
English....	138
Scotch....	66
Irish....	17
Welsh....	10
Americans....	1,839
Danes....	47
Swedes....	48
Italians....	8
Germans....	45

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Austrians.....	33
Finlanders.....	18
Norwegians.....	16
Hungarians.....	11
French.....	18
African.....	1
Ruthenians.....	4
Polanders.....	1
Icelanders.....	3
Russians.....	3
Swiss.....	7
Australians.....	4

These people were destined to the following points :—

Southern Alberta.....	187
Northern Alberta.....	325
Assiniboia.....	108
Manitoba.....	7
Saskatchewan.....	1
British Columbia.....	197
Alaska.....	1

There are at present in the district about 23,000 horses, 148,000 cattle, 105,000 sheep, representing a fair value of \$6,365,000.

There were shipped from Lethbridge during the year to the east 13,631 cattle, 3,518 horses, and to the west 6,627 cattle and 297 horses.

Mr. Gray states that 85,000 acres are under crop in Southern Alberta, promising a yield far surpassing the sanguine expectations, and as a result of the prospects it is expected a large brick roller flour mill and elevator will be completed at Raymond by November 1.

Much interest has been taken in the proposal to raise sugar beets at Raymond, and as a preliminary 5,000 acres of grain have been sown as the first step towards getting the prairie soil in readiness for beets.

Coal mines at Lethbridge continue to be extensively worked and the output aggregated during the year 159,600 tons. The coal is of superior quality and finds ready sale north and south of the boundary line.

The number of settlers who arrived at this point exceeded those of the previous year, numbering 1,585 and are desirable people from every standpoint.

SYNOPSIS OF REPORTS OF IMMIGRATION AGENTS IN WESTERN CANADA.

Mr. D. MORRISON, immigration agent at East Selkirk, reports that 7,861 souls received temporary accommodation at the immigration hall at this point, and were distributed throughout various parts of western Canada. Outside of some cases of measles which affected some of the children, their general health has been very good. During July of 1901, 90 Icelanders and Swedes were quarantined at that point on account of one case of small-pox. All recovered and were sent to their destination without unnecessary delay. The erection of a large water tank with windmill attachment, and the extension of the spur track from the railway station to the immigration hall, have materially added to the comfort and convenience of immigrants, and enabled our officers to do their work with better results. The main building, however, should be replastered throughout, and a stable erected.

Mr. PAUL WOOD, immigration agent at Sifton, Man., reports that during the year 220 families have been settled in his district, and that he has found employment for 250

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men with farmers and on railway construction, and has placed 40 girls as domestic servants. A considerable amount of land is still vacant for homesteading between Garland and Minitonas Stations on the Canadian Northern Railway, and at a rough estimate probably 600 families could still be placed along that railway.

Mr. HUGH HARLEY, immigration agent at Swan River, has a large district to cover, and it is gratifying to note the improvement made in this newly-settled part of Manitoba. In the district there are now two municipalities with progressive ideas, and they have built a number of roads and bridges which have been much needed. The settlers who went into the Swan River country a few years ago are building new and large houses and barns, and some of them have between 200 and 300 acres under crop this year. A large number of homestead entries have been taken, but there are still probably 300 homesteads suitable for mixed farming which may be taken within an easy distance of the railway. During the year 87 car-loads of settlers' effects were unloaded at this point. During the year 27,000 acres of railway lands have been sold, and the manufacturing industries so indispensable to a new country are represented in this district by eight saw mills, one planing mill and a flour mill. In the whole district 19 public school districts have been formed, and seven churches have been erected. It is expected a hospital will be built during the summer. It is only four years since this district was opened for settlement, and yet of last season's crop 60,000 bushels of wheat were shipped from Swan River. The winter of 1901-2 was mild and beautiful; there was scarcely enough snow for good sleighing, and at the present time wheat and garden stuff are looking well.

Mr. JOHN MENZIES, who has been acting as agent for the department at Shoal Lake, in Manitoba, reports that the Galician settlers in the Shoal Lake and Rossburn districts show a great improvement both as regards their financial position and their general mode of living. Their dwelling houses seem to be more substantial; their stables and other outbuildings largely increasing, and there are many more herds of cattle and horses to be seen than were apparent during the previous fiscal year. He is pleased to note that these people are living down the prejudice which at one time existed in the mind of some of their Canadian neighbours, and the Galicians have proved themselves invaluable as farm labourers and by working for the municipalities on the roads.

It is a pleasure also to note that these people are learning the English language very rapidly and universally exhibiting pride in adapting themselves to Canadian institutions.

The young women from these settlements are in great demand throughout Manitoba as domestic servants, and give general satisfaction after a few months training.

Mr. J. S. CRERAR, immigration agent at Yorkton, Assa., reports the increase of settlement in his district to nearly one hundred per cent more than any previous year. The settlers coming in have more capital than usual, and purchase land besides taking a homestead. The districts about Saltcoats, Churchbridge and Langenburg are filling up very fast with desirable farmers from the United States and Ontario. The extension of the railway fifty miles north-west of Yorkton, and the construction of the line from Elkhorn to Pheasant Forks are causing a great rush to the land contiguous to these railway extensions. The crops appear to be fully equal to last year, and the farmer seems to be the happiest man in the country. Cattle came through the winter in splendid shape, and prices are better than they have been for some years.

Mr. PAUL M. BREDT, immigration agent at Regina, represents the department at one of the most important points in the west, it being the junction of the railway to Prince Albert, along which such a tremendous stream of settlers has been pouring during the last year. No less than 727 received accommodation in the Immigration Hall.

Mr. Bredt notices with much pleasure that a number of people who arrived in that locality five or six years ago with practically nothing are now worth \$3,000 to

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\$4,000 each, and many others who have been living there for ten or twelve years are worth from \$8,000 to \$12,000, and some of them are foreign-born who had on their arrival no knowledge of the English language.

All the settlements in the Regina district are in the most progressive condition ; houses and stables are being built everywhere. The grade of cattle is improving very much. It is particularly gratifying to note from Mr. Bredt's report that immigrants who moved out of his district owing to the partial crop failure of 1894 have returned from the United States with more experience probably but financially poorer than those who remained in Canada.

REVEREND H. L. VACHON, immigration agent at Prince Albert, reports a satisfactory result from his labours amongst the French Canadians in the United States. The delegates accompanying this agent have been of a very desirable class, and their report has already produced good results in the way of increasing immigration.

Mr. GERHARD ENS, immigration agent at Rosthern, Saskatchewan, has a large district to cover, and he reports a very satisfactory condition throughout. The past winter closed without any severe storms, and livestock came through in good shape. The spring of 1902 opened exceptionally early, and the farmers were enabled to make excellent headway with their crops. Very heavy rains fell during the latter part of May, but the prospects for a good and heavy crop are at the time of this report very good.

The German colonies between the two branches of the Saskatchewan river are flourishing in a most gratifying manner, and have been largely augmented by Russian-Mennonites of the younger generation from the province of Manitoba.

The Galicians settled in this district are generally better off than ever before. They are showing themselves to be first-class settlers, and have immense areas of land under crop. The same may be said of the Doukhobors, who appear in this district to have large herds of animals, all in excellent condition.

A new settlement of Roumanian agriculturists has been started in the Wingard district, west of Duck lake, and should be successful, as the location is good and the soil first-class.

Fully forty-five families of Hungarian farmers have settled in the Crooked Lake district, and are found to be a most desirable addition to the agricultural element of the west.

Several families of Russian Baptists and Stundists have been located in the Eagle hills, west of Saskatoon, where there is a large quantity of good land available for homesteading.

Mr. Ens finds a decided improvement in the financial condition of a large number of the new settlers coming to his locality ; they are able to start farming operations under the most favourable conditions, and he notes with pleasure that many of them are Canadians returning from the United States. The prospects are good for the heaviest crop yield ever known in the district.

Mr. L. B. COCHRAN, immigration agent at Medicine Hat, reports that immigration into his district is the largest on record, and that a number of settlers are doing considerable farming in addition to their ranching. Very large bands of cattle are reported to be upon the ranges.

There is a large increase of acreage under cultivation and the crops are well advanced. The winter was a favourable one for stock and no serious losses were reported. The abundant rainfall of May and June afforded a bountiful hay crop and the cattle are in a first-class condition. The shipment of stock will be much in excess of any previous year. Schools, churches and post offices are springing up all round, and the settlers appear to be well content. The town of Medicine Hat is improving with the development of the surrounding country, and a natural gas plant is in operation supplying fuel and light of the best kind at a very moderate cost as a municipal enterprise.

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Mr. JAMES WINN, immigration agent at Calgary, has had an exceptionally busy year. The immigration hall at this point has been very liberally patronized, and no less than 2,011 souls received accommodation therein. It is interesting to note that the nationalities composing this number are as follows:—English, 166; Irish, 62; Scotch, 78; Germans, 274; Scandinavians, 389; Americans, 628; Canadians, 335; Belgians, 13; other nationalities, 66.

The courtesy of the Canadian Pacific Railway Company at this point in permitting the use of a special room in the station building for the convenience of the large numbers who had only a few hours to wait for a connecting train is much appreciated.

Calgary is distinctively a distributing point, and during the past fiscal year 654 car-loads of stock and settlers' effects, valued at \$476,228, passed through the hands of the customs officials at this port, a fact of sufficient proof that the new settlers were of a superior class.

Last year's crops were good, and the farmers received good prices therefor. Wheat brought 67 cents; oats, 28 to 30 cents; barley, 45 cents; potatoes, 75 cents; butter, 25 cents; eggs, 35 cents. The farmers in the district who cultivated their land last fall have the best crops, and experience shows that fall work invariably results in a good crop the following year. Stock on the ranges are in prime condition. The crop conditions this spring were discouraging for a time owing to excessive rains, but they are now proceeding to maturity at a surprising rate. The growth of the city of Calgary is an evidence of the prosperity of the district, and it is reported that no house is available for renting at the present time, although two hundred new houses were erected in Calgary during the past year.

Mr. THOMAS BENNETT, immigration agent at Strathcona, Alta., reports a larger number of arrivals than during the previous year, and, in consequence, the new addition to the immigration buildings at his point has been fully occupied. Settlers in the district are contented and prosperous. Galicians and Bukowinian colonies are doing remarkably well, and their farms are generally well fenced and well cultivated. Settlers from the United States are increasing in numbers each year, and with their advent new branches of agricultural industry are being rapidly opened up. Flax was first sown in the district in 1901, about 700 acres being under this crop and resulted very satisfactorily. Flax can be grown successfully, but a better market is needed. Improvement to the trails or roads leading to the railway is urgently needed.

Mr. C. W. SUTTER, immigration agent at Edmonton, Alta., has a very large and rapidly increasing district to attend to. He reports that during the fiscal year 15,458 souls have settled in Northern Alberta, made up as follows:—

English.....	612
Scotch.....	734
Irish.....	456
Germans.....	1,427
Scandinavians.....	2,040
Americans.....	7,230
Canadians.....	1,686
Galicians.....	713
Other nationalities.....	560

Total..... 15,458

Mr. Sutter notes with much pleasure that of those coming from the United States, a very large number are Canadians by birth. Amongst those who have been securing land here, some are from the states of Virginia and Pennsylvania, who appeared to be so well satisfied with the country that they all secured land before leaving for home.

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The Galician settlements, numbering about 12,000 souls, are continuing to progress rapidly and very satisfactorily, and they will have much grain and other produce to sell this year; railroad accommodation is urgently required as they are now from fifty to one hundred miles away from a railroad. Their business transactions with agricultural implement firms in Edmonton have increased over one hundred per cent, and the fact that their progress is so rapid when they are so far away from railroad communication should go a long way towards removing any misconceptions regarding the value of these people as agricultural settlers.

During the year over 6,000,000 bushels of grain were harvested in Northern Alberta, and the prospect for a similarly heavy crop this season is very satisfactory.

SYNOPSIS OF REPORTS OF LAND GUIDES.

Mr. JOHN MCKINNON, land guide at Dauphin, reports the weather in the spring being much against successful raising of crops, but with the present dry weather the prospects are daily improving, and it is expected a fair crop will be realized. In the immediate vicinity of Dauphin there is little homestead land now vacant, but large quantities of railway and provincial lands are still available at reasonable prices. This district continues to show substantial progress.

Mr. H. WHITLOCK, land guide at Estevan, Assiniboia, makes a very satisfactory report for his district, and states that there have been 460 homestead entries made at the Estevan sub-land office as compared with 67 such entries for the previous fiscal year.

The settlers appear to be a very desirable class, most of them being experienced farmers with some capital.

The crops are in general good, and with the abundant rain the conditions were never more favourable.

Mr. A. E. GUINN, land guide at Melfort, Saskatchewan, reports a large number of land-seekers going through his district; that the land is of first-class quality, but is not all open prairie as many people seem to imagine; the climate is excellent and most people going to that vicinity are well pleased.

Mr. WILLIAM PLAXTON, land guide at Prince Albert, Saskatchewan, reports a very busy season, and the Immigration Hall at that point has been at times crowded to excess. A full average of grain has been sown, and the present prospects for harvest are very good.

Mr. JOSEPH M. SMITH, land guide at Red Deer, Alta., reports that everything points to an abundant harvest, that lands are increasing in value and the ranching industry is improving yearly.

The town of Red Deer is a fair example of the result of the increased immigration into Alberta, and during the year the sum of \$80,000 was expended in new buildings at that point.

Mr. COOK MEYER, land guide at Ponoka, Alta., reports that 476 persons received land guide service at his point during the fiscal year, and nearly every one was satisfied with what he saw. Some further steps should be taken, however, to reach the railway line without difficulty. The farmers in his locality have voluntarily doubled the road tax upon themselves, yet this fact will only in a very small manner meet the extraordinary emergencies of the case. The whole district appears to be in a satisfactory condition.

Mr. B. P. DICK, land guide at Didsbury, in Alberta, reports that the weather during the fall of 1901 in his part of Alberta was particularly fine; the succeeding winter very mild and pleasant and the crops are in excellent condition. Fall wheat is going to be the standard crop.

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About 150 families were settled in his district during the year, and brought with them 108 carloads of settlers' effects. Ten new school districts have been organized during the first half of 1902 within a radius of ten miles of the village of Didsbury. The only vacant lands within five miles of the village are school lands and those belonging to the Hudson's Bay Company.

Mr. BENOIT TETREAU is the land guide at Vegreville, a settlement 85 miles east of Edmonton, the nearest railway station being that point. A very large number of homesteads are taken up in his district, and settlers arriving are most desirable. The past winter was very fine; this year's spring somewhat wet; but the present summer season is splendid growing weather.

Mr. THOMAS BAIRD, land guide at Willow creek, 75 miles east of Lacombe, reports that in his immediate district 205 homesteads were entered for during the latter part of the fiscal year, and forty-seven sections of railway land have been purchased in the same townships. His district he says is a beautiful country, mostly prairie, although there is good protection for stock; the land is very heavily grassed, and well watered, and plenty of good water can be obtained in wells from ten to twenty-five feet deep. Coal is to be found on all the principal creeks. The largest proportion of the settlers into his district are those from the United States.

Mr. JOSEPH NIXON, land guide at Macleod, Southern Alberta, reports that during the fiscal year 355 homestead entries were made through the sub-agency at his point, and the class of settlers are such as to afford an unimpeachable endorsement of the value of the country for agricultural and stock-raising purposes. He refers particularly to the satisfactory settlement of two townships at Claresholm by a large party of Norwegians who had previously resided in North Dakota for twenty years. These settlers appear to have ample funds for immediate and successful operations.

The building rented by the department as a temporary immigration hall has been occupied to the fullest extent almost every day during the season.

The hay and grain crops were abundant and satisfactory; flax appears to have passed the experimental stage, and is classed as one of the staple and paying industries of husbandry in Southern Alberta.

SYNOPSIS OF REPORTS OF DOMINION LAND AGENTS.

Mr. L. J. CLEMENT, agent of Dominion lands at Brandon, Man., reports that the general prosperity of the country is good, and everyone appears to be contented with the outlook. This is evidenced by the fact that the towns are growing rapidly, and the farmers are improving their places by erecting new and larger houses, barns and granaries. The demand for farm help has been much in advance of that of former years, and the class of settlers coming in are in every respect desirable.

Mr. F. K. HERCHMER, agent of Dominion lands at Dauphin, Man., reports that during the year 381 homesteads were taken through his office, and that a considerable area of other lands was sold. The demand for cattle, hogs and poultry is still in excess of the supply, and keeps prices very favourable for the producer. The continuance of dry weather will result very favourably to the crops during the next two months.

Mr. J. W. HANNON, agent of Dominion lands at Prince Albert, Sask., states that the people of Melfort, east of Prince Albert, expect the Canadian Northern Railway to reach Melfort this fall. A very large number of people have gone into this district during the year, and the homestead entries have been double those of the year previous. Very large quantities of land have been sold by railway companies, and by private individuals, and it is the opinion that the recent heavy purchase of lands by the Saskatchewan Valley Land Company will, with the colonization efforts projected by them,

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greatly increase the tide of immigration and progress. A fine class of prosperous Norwegians and Swedes from Minnesota and Dakota have settled at Glenmary. The merchants, contractors and stock dealers all feel that the tide of activity and prosperity is general. The approximate area under cultivation at the present time is: Wheat, 50,000 acres; oats, 20,000 acres; barley, 40,000 acres. The growth and condition of the crop are all that is desired, and indicate that the yield will possibly exceed the abundant crop of last year. Mr. Hannon states that every intelligent settler locating here immediately becomes a colonization agent, and this informal public service is very rapid and effective in its results.

Mr. A. G. HARRISON, agent of Dominion lands at Edmonton, has made an extensive report on immigration matters. Viewed from the standpoint of a land agent, he believes the capabilities of his district have now been thoroughly tested and proven satisfactory. The tide of immigration continues strong, and has increased the business of his land office by one-third. During the last fiscal year there was taken through this land office an average of 1,000 acres per day, and during the year 2,144 homestead entries were made. He estimates the area under crop is 18 per cent greater than the previous year. Of the 115,000 acres under crop about 70 per cent is in oats; 20 per cent in wheat; and 10 per cent in barley; and taking the report of the North-west Territories government of last year as a basis, and presuming favourable weather, about 6,000,000 bushels of grain will be harvested in what is known as the Edmonton district. The live stock shows a remarkable improvement in condition, and the class of immigrants is better than any previous year. The surprising growth of towns all along the Calgary and Edmonton Railway is considered proof of the healthful feeling in the whole country, and the substantial buildings going up everywhere prove the settlement to be of a permanent and satisfactory character.

Mr. JAMES BANNERMAN, Dominion lands agent at Kamloops, B.C., reports the past year as being a favourable one for farmers and ranchers; the grass on the ranges is better than it has been for years, and the prospects for a good harvest equally as good as the previous twelve months. There appears to be an increasing number of inquiries regarding land in that portion of British Columbia.

SYNOPSIS OF REPORTS OF SUB-AGENTS OF DOMINION LANDS.

Mr. SPENCER PAGE, sub-agent of Dominion lands, at Wapella, Assiniboia, reports that a large number of entries have been granted north of the Qu'Appelle river along the new branch of the Canadian Pacific railway from Elkhorn. The Finlander colony north of Wapella has received some new settlers, and the acreage is rapidly increasing. The Hebrew settlement is proving a great success from an agricultural standpoint, and since the colony have purchased a threshing outfit, and one of their own number is qualified as engineer, they seem to succeed much better. During the year ninety-eight applications for homesteads were granted through this office. The present crop prospects are very encouraging, and a large amount of breaking is being done on the prairie this season ready for next year's work.

Mr. J. J. ENGLISH, sub-agent of Dominion lands at Maple Creek, Assiniboia, sends a very satisfactory report, and states that the number of homestead entries through his office during the last six months show an increase of over 150 per cent, and the class of settlers coming in are all of the very best. He estimates that at least 15,000 head of stockers have been brought in from the east and placed upon ranges in his district during this season. The past winter has been very favourable for the ranchers, and the spring branding of calves just completed shows an increase this year of fully 75 per cent. There is a marked general improvement in the condition of the herds

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during the past two years. The number of horses shipped out of the district to South Africa during the year was about 250. It is estimated that in this district there are at present 75,000 sheep, and the quantity of wool to be shipped from there this season would amount to 450,000 pounds. Owing to the abundant rainfall the crops are in excellent condition. Mr. English reports that there are a number of vacant homesteads within a short distance of Maple Creek well suited for mixed farming, and plenty of good locations along the line of railway.

Mr. R. M. MITCHELL, sub-agent of Dominion lands, Weyburn, Assiniboia, reports a very large influx of settlers into that district contiguous to the 'Soo' line, no less than 682 homesteads being taken through his office during the past fiscal year. The crops are in good condition, and a large number of new settlers appear to be well satisfied with their new homes. Land prices are rapidly increasing.

Mr. SEYMOUR GREEN, sub-agent of Dominion lands at Moosejaw, Assiniboia, reports that during last year a large number of people stopped off at Moosejaw, it being the junction point between the 'Soo' line and the main line of the Canadian Pacific railway, and the district has received a very large number of very desirable settlers, for example, township 19, range 27, W. 2nd meridian, which was all vacant in the fall of 1901, is now completely taken up by homesteaders, and almost equal results have been shown in other townships. It is pleasing to have an expression of opinion from this agent stating that the large purchasers of land that have come from the United States bring over actual settlers, and, after locating them on homesteads, sell the adjoining land. This is a good system, and it is pleasing to know that it is working out so well. The prospects of a bountiful harvest in this district are very good, and all kinds of crops are looking well. There is a very large acreage under cultivation, and during the year 231 homesteads were entered for through this sub-agency.

Mr. C. O. CARD, sub-agent of Dominion lands at Cardston, in Southern Alberta, presents a glowing report of the prosperity of his district, but there is yet a great need of more railway facilities; the large acreage under crop this year in the district will need railway accommodation much greater than ever in order to relieve the congestion. Settlement is increasing on all sides, and the population of the district has almost doubled in the last two years.

Mr. R. W. LOGAN, sub-agent of Dominion lands at Olds, Alberta, reports that about ninety carloads of settlers' effects arrived at Olds this spring; the weather conditions are favourable, and the present indications are that a greater part of the land under cultivation will produce excellent crops.

During the year 239 homestead entries were made at this land agency, and there are practically no homesteads open for entry within ten miles of Olds.

Mr. J. B. HOLDEN, sub-agent of Dominion lands at Leduc, Alta., reports that double the number of homestead entries were made in his office during the fiscal year.

The crops are in splendid condition, cattle doing well, and largely increasing in numbers.

The hay crop is exceptionally heavy, and cutting should commence about July 25. The acreage of land broken in his district has increased 25 per cent.

Mr. A. E. COX, sub-agent of Dominion lands at Pincher Creek, Alta., reports an unprecedented activity in the settlement of his portion of Southern Alberta, and no less than 230 homesteads were entered for through his sub-agency during the past year. He reports that no better class of settlers could be found than have settled in the Pincher Creek district, many of them having acquired railway or Hudson's Bay Company lands in addition to their homesteads, and aggregating probably 50,000 acres. A

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very large acreage will be seeded this year to fall wheat. The cattle wintered very well, the percentage of loss being very low. The crops never looked so well in the history of Southern Alberta as they do at present. A large quantity of land is still available for settlers in connection with this sub-agency, particularly towards the north, and much land near the mountains would be taken up if surveyed.

Mr. ROBERT MCINTOSH, sub-agent of Dominion lands, Saskatoon, Sask., reports immigration at Saskatoon increasing at a very rapid pace. The district was never more prosperous, nor has the outlook been brighter at any time than at present. During the last fiscal year nearly 700 homestead entries have been made through this sub-land agency; 150 of which have been made during the present month of June, and, like our other agents, Mr. McIntosh is pleased to notice that a very large percentage of those taking up homesteads are Canadians who years ago emigrated to the United States. The crop area next year will show a magnificent increase when these new settlers are in a position to cultivate the land. At the present time there are about 7,000 acres in wheat, 1,500 in oats, 500 in barley, and 500 in flax, with a magnificent prospect for a heavy crop. Owing to the abundance of magnificent hay and plenty of sunshine, the cattle will be ready for shipment some two weeks sooner this year than they were last. Elevators and a grist mill, besides very many other buildings, are in the course of erection at Saskatoon, and afford an evidence of the prosperity of the surrounding country.

Mr. A. E. WYLDE, sub-agent of Dominion lands at Melfort, Sask., is situated at a point 75 miles east of Prince Albert on the border of the Carrot river country, and notes the largely increased number of arrivals in that district.

The majority of new settlers are from the United States, the balance being Canadians and all of a very desirable class. This portion of western Canada will be much benefited by the construction of the Canadian Northern railway, which, it is expected, will be completed during the next fiscal year.

Notwithstanding the absence of railway accommodation, over 20,000 acres of land are in crop south of the Carrot river in the vicinity of range 21, west of the second meridian, which must be considered highly complimentary to the natural qualifications of the district.

At the time of this report the crops are looking splendid, and early barley is beginning to head out.

CONCLUSION.

The advance in values of land in western Canada reported during the previous fiscal year has continued during the fiscal year now closed; the quantity of real estate which has changed hands has been very remarkable, and it is hoped will lead to a much larger acreage under crop in the immediate future. When it is considered that there are only about 900,000 acres under cultivation in the North-west Territories of Canada, and it is estimated by competent authorities that there is contained within the area comprised by that term 205,000,000 acres of arable land, the possibilities of development appear more remarkable still.

From statements made to me from time to time by people from the United States, it is quite evident that the efforts of the department have been successful along two separate lines of action, although both have a common end. Not only have we received very large numbers by the actual work of the government agents in inducing United States farmers to come direct to western Canada, but it is quite evident that the department has been successful in preventing very large numbers from going to the south-western states of the Union who would make desirable settlers for western Canada, and these people were, to a large extent, those who had been compelled to leave their former holdings and seek new fields.

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It is gratifying to observe the satisfactory and gradual increase of emigration from Great Britain and Ireland, and my experience during the past fiscal year tends to show with emphatic clearness that the want of information respecting western Canada is now being supplied to the people of the old land, and a corresponding increase in immigration will inevitably follow.

With the very large increase in the number of people passing through the hands of the staff connected with this office, the duties of each official have been very materially increased, and I am pleased to note that the work has been carried on efficiently. With the possibility of a much greater increase in work, I beg to recommend the immediate erection of much larger office premises and improvements in the buildings at Winnipeg, which are required to enable us to carry on our work with accuracy and rapidity.

Respectfully submitted,

J. OBED SMITH,
Commissioner.

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No 2.

REPORT OF C. W. SPEERS, GENERAL COLONIZATION AGENT.

BRANDON, August 6, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit to you a report of my work in the immigration branch from June 30, 1901, until June 30, 1902.

Taking liens for about 43,000 bushels of seed grain advanced to settlers for seed purposes through Assiniboia occupied much of the month of July. This advance was a great boon to the settlers, and a very bountiful harvest was reaped.

During the same month I accompanied a delegation of Russians to Saskatchewan; they were much pleased and decided to locate.

I was also able to find employment for a large number of our settlers with Superintendent Milestone, of the Canadian Pacific railway, during the month, and recommended certain adjustments pertaining to Galician settlers.

I found that about 2,500 Galicians, about 1,600 Doukhobors, and also about 4,000 Germans had been settled in Saskatchewan since 1898. This has become a prosperous district, towns have been built, good markets established, and last year some 750,000 bushels of wheat was marketed between Saskatoon and Rosthern, a distance of 40 miles along the Qu'Appelle, Long Lake and Saskatchewan Railway.

The inspection of colonies in the vicinity of Rosthern, and inspection of districts with recommendations for further survey for colonization purposes were then taken up, followed by a report on western colonies with suggestions concerning American delegates.

Under instructions from the Superintendent of Immigration, I attended the state fair at Springfield, Ill., with Agent Broughton, and at St. Louis, Miss., with Agent Crawford, putting up the productions of western Canada and giving information at these state fairs. A greater interest than ever before was manifested, and good immigration work accomplished.

The grains and grasses, roots and vegetables were of a better quality than ever before put on exhibition, and as the season was dry and little or no vegetation through the western states, our exhibit drew large crowds of interested admirers, who were surprised at our wide range of production.

Under instruction from department, I inspected the work-house children scattered in western Canada for the Imperial Government. Some seventeen were inspected according to list furnished by department. These children are all well placed, have good homes, and a hopeful future before them.

The inspection of colonies at Riding Mountain was then taken up, and then, under instruction from the deputy minister, inspection and report on the origin of the outbreak of disease in certain municipalities.

Under instruction from the department, I accompanied the Canadian editors through the west and Pacific Coast states, assisting in the distribution of literature and placing our products on exhibition in certain cities. The Press Association took a deep interest in holding up Canada as a field for immigration, and I feel persuaded did a great deal of good work for Canada. On this trip I was permitted to address large meetings at Omaha, Neb., at Los Angeles, Cal., at Salt Lake City, Utah, at Denver, Col., and St. Paul, Minn. The reception at all places was cordial, and the interest

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manifested very great. The exhibit prepared by the Press Association was in 8 folding cases, and was a credit to Canada. This was put up in the leading cities through which we passed.

After returning to Canada I was again called to the United States to address meetings, arranged by B. Davies and J. H. M. Parker, of St. Paul and Duluth, respectively. These meetings were largely attended, and the results have already been felt, as I have met many settlers in Canada from the districts concerned.

The inspection of Galician colonies in the Riding Mountain district, making a trip over the mountain to Duck Mountains and looking into suitable districts for future colonization work followed.

Following a report with observations concerning immigration in the Pacific Coast states of Washington, Utah, Oregon, Nevada, New Mexico, Arizona, I accompanied a delegation from Iowa, U.S., through Moose Mountain district to select location for 50 German families.

Inspected the lands on the Saskatchewan Railway.

Made an inspection and report on colonies, and progress and prospects of colonists throughout Saskatchewan; reported on the selection of a location for the Roumanian colony at Wingard, Sask., and then accompanied a delegation of Americans, under instructions, through Assiniboia and Saskatchewan, and reported on suitable districts for colonization work in the future with report on country.

I beg to state that the settlements throughout western Canada that have been founded within the last five years are all in a prosperous condition. The Galicians and settlers from eastern Europe have done remarkably well. They are now able to remain at home, without going out to work, and look after their own interests. They have stock and machinery and comfortable surroundings, and are considered good settlers.

The sanitary conditions of the colonies are good. The young people are speaking English, and fast becoming Canadianized. There are contentment and prosperity on every hand, and the prospect of an abundant harvest almost ready to reap.

The great influx of American settlers is due to the untiring efforts of the department in constantly keeping Canada and the great resources of our country before the American people, both by literature, lectures and by exhibiting our products.

We have yet an unbounded expanse of fertile country to populate, and for years to come can give a portion of our great heritage to those who may come to settle here.

Your obedient servant,

C. W. SPEERS,

General Colonization Agent.

OPERATIONS IN THE UNITED STATES.

No. 1.

REPORT OF W. J. WHITE, INSPECTOR OF AGENCIES IN THE UNITED STATES.

DEPARTMENT OF THE INTERIOR,

OTTAWA, September 23, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—The immigration work in the United States for the past year has been fully as successful as the most sanguine expectations led us to believe it would be. The states in which operations have been carried on are those which have been worked for the last four or five years, viz.: North and South Dakota, Minnesota, Wisconsin, Nebraska, Kansas, Iowa, Illinois, Missouri, Indiana, Ohio and Michigan. Outside of these states more or less work has been done by what are known as sub or local agents, who are paid according to results. Attention has also been given applications from headquarters. Montana, Utah, Pennsylvania, Texas, Oklahoma, Wyoming and Oregon may be counted among the outside districts where the work has been carefully looked after in this way. The work done in this outside territory, as intimated, has been fairly successful, and I am satisfied that were we able to conduct more active operations in these states the results would prove highly satisfactory. The state of Montana, especially, should be a good territory. For various reasons large numbers of people have gone into that state but have not succeeded as well as they expected, and were our agents able to come into direct touch with them it is felt that considerable good work could be done. I speak in the same sanguine manner regarding Pennsylvania and New York, and I hope during the next year to be able to get more closely in touch with these states and that the next report to the department will show that there has been a large influx of settlers from these districts. During the early part of the year we carried on an excellent work in Oklahoma. Owing to the great number of people induced to go to that territory hoping to secure lands and realizing the possibility of their failing, the department was led to the conclusion that some good work could be done by the establishment of a Canadian agency at some point in Oklahoma for a temporary period during the existence of the land boom there. Carrying out your instructions, Mr. Crawford, our agent for Missouri and Kansas, made his temporary headquarters at El Reno, assisted by Mr. J. C. Duncan, Mr. Bennett's assistant at Omaha. They had a plentiful supply of exhibits of grains and grasses of western Canada, and placing these in large tents were able to attract crowds of home-seekers. To these literature was distributed, and I am pleased to say that results were immediately seen, it being necessary for the agents to start at once for western Canada with parties of fifty and sixty, and as a result of the efforts in Oklahoma during the couple of months that they were being made it is thought upwards of one hundred families were induced to come to western Canada. Every month in the year settlers have moved to the vacant lands of western Canada, and the reports of almost every settler have been of a highly satisfactory character. It is encouraging to be able to state that the number of inquiries that were made at the different offices was largely in excess of those of last year, and

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the results have been considerably greater. Not only has the number of settlers greatly increased but the amount of capital brought with each settler has also shown a marked advance over any previous year.

ADVERTISING.

I have given this my special attention, and there has been no relaxation in the matter of securing publicity in the most important papers throughout the states in which we have been operating. The plan adopted is to have inserted in these papers neatly displayed advertisements setting forth briefly the advantages offered by Canada as a field for settlement. These are accompanied by reading notices and the testimony of delegates, and in this way we are able to reach the homes of the people and secure an interest which could not otherwise be obtained. Local papers, leading weekly newspapers and farm publications are the mediums that are used. In addition to this literature is forwarded from the local agencies, and is supplemented from the head office when occasion requires. This distribution consists largely of atlases, reports of delegates and testimonies of settlers, as well as special issues of such papers as the department feels to be in the interest of the work. Lectures are also given by the different agents during the winter months. The meetings are advertised at outside points, and are largely attended and great interest manifested. The state and county fairs are also visited, and at these splendid exhibits of the grains, grasses and other products of western Canada are shown. In every case we have had the hearty good-will of the officers of the associations and were given excellent positions in which to place our exhibits. Maps have been distributed in large numbers, and in many cases successful efforts have been made to secure the introduction of our literature into the schools. Sometimes this has been accomplished through personal request of the teacher.

The movement of people from the United States does not now mean one or two individuals with their families leaving given points at given times, but whole train-loads starting out, and while there are excursions organized and largely patronized, people are inclined to move every day in the week and every week in the year. I would like to add here that the reports which come from these settlers are of the most favourable kind, speaking very highly of the work of the locating agents and others who accompanied them to their homesteads when they reached western Canada. I may point out that this is of wonderful assistance in procuring settlers from the United States. These settlers speak in the highest terms of all the officials of the government with whom they come in contact. I wish also to point out that the agent who is securing settlers is a man who is supposed to be thoroughly posted regarding Canada, whether it may be in the matter of agriculture, mining or timber, and is also well informed respecting Canadian laws. In this respect I am pleased to say that most of our agents have proved very satisfactory.

Through the efforts of our agents we are able to secure in a number of instances considerable concessions in the matter of freight rates for the actual settler coming into western Canada, and the agent himself renders very valuable assistance to the settler, visiting him at his home and also at the depot in leaving and assisting him in arranging his car, selecting his route and in other ways making it easy for him to move to his new home.

As to the work for the ensuing year I have no suggestions to make as to material changes, but would recommend that I be allowed to carry on the same plan of publicity which has been carried on in the past. This will mean the distribution of a work something after the character of the present atlas. Hangers might be procured and distributed, also trade marks, both in this and the old country. I would recommend also that the method of advertising in the newspapers which has been adopted in the past be continued, and would be pleased if instructions were given for the extending of our advertising into Pennsylvania, New York and Montana lists in view of the possibility of its being necessary to go into these states to carry on a more extensive propa-

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ganda. I am satisfied that the number of settlers from the United States will next year be largely in excess of the present, the present being considerably in excess of last year. I would also recommend that new exhibits of grains and grasses be prepared and a plentiful supply be arranged for in order that the agents in the United States as well as Great Britain may be able to have all they require, as I consider the display of these grains at public places to be an excellent advertising medium.

During the past winter two months of my time was spent in Great Britain and on the continent, giving what assistance I could to Mr. Smart and Mr. Preston in the reorganization of the work in the old country. During the time of our visit there I accompanied Mr. Smart to the agencies on the continent, and I also prepared literature and advertisements, attended to its distribution and otherwise rendered what assistance I could, the particulars of which will doubtless be embodied in the report made by the deputy minister.

Your obedient servant,

W. J. WHITE,
Inspector of United States Agencies.

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No. 2.

REPORT OF M. V. McINNES.

ROOM 2, AVENUE THEATRE BLOCK,

DETROIT, MICH., July 1, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg to submit my report for the year ending June 30, 1902.

The work during the past year has been continued on the same favourable lines that characterized it during the year previous, and the results have been very encouraging. The same superior class of settlers have availed themselves of our information and low rates of travel. The same satisfaction has been in evidence after their settlement in their new prairie homes.

The most active and intelligent of these people have become useful agents, inducing many of their kindred and friends to change their residence to that land which is now familiarly known among them as the 'wheat-growing paradise of the world.'

From the territory under my control, 3,261 emigrants, including settlers and prospectors, according to my records and returns, have gone out with the intention of making western Canada their home. They have not departed empty handed, but took with them what amounted to 118 car-loads of stock, effects, baggage and light freight, aggregating in weight 2,782,000 pounds, and which, together with ready cash amounted in value to the respectable sum of over \$975,000.

To demonstrate the great value to our western country of independent American farmers with means, I may specially mention the case of Mr. Peter Muirhead, of Orchard Lake, Oakland County, Michigan, a skilled and enterprising farmer who visited western Canada during the year at my instance. Let him tell his own story. In a letter to me dated June 18, 1902, among other interesting things, he states as follows:—

'Having seen your exhibit at the Pontiac state fair, and hearing your clear statements I decided to see western Canada for myself. I visited every part of it and found the farmers prosperous, contented and happy, the climate grand, and the land, I believe, the best on earth. I bought a ranch near Calgary, in Alberta, of 3,000 acres with 1,500 head of cattle, 150 horses and a \$5,000 house, furnished, from Mr. Walter C. Skrine, and paid him \$51,000 cash. I am going back at once, and will take with me six car-loads of improved stock, with two car-loads of effects, and expect to be accompanied by forty friends of mine as permanent settlers. Beautiful Southern Alberta, to my mind the finest stock-raising country on the continent, will be my home after the first of the coming month.'

This gentleman is worth over a quarter of a million dollars, which he will take with him to Alberta in cash, and is assured of a large and influential following from his section of Michigan during the present season of settlers on our western lands.

The Alameda colony in the Moose Mountain district of Assiniboia, started some years ago, principally by German-American settlers, still thrives and is going ahead with rapid strides. Mr. William Richert, the prime mover in the enterprise, was several times in Detroit during the year, in the interest of his new home and fellow-citizens of Alameda. His errands were successful. A large number of well-to-do settlers went back with him each time, and he intends thus to prosecute his well conceived plan of colonization by occasional trips between his new and his old home as time goes on. No better acquisition has ever been secured to our western citizenship than the Alameda detachment of settlers.

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Another matter of significance is the deep interest taken in our western immigration by a large colony of Hungarian-Americans located in Delray, a suburb of Detroit. Some four hundred families of these thrifty people are disposed to change their residence to Canada, and only await the return of three active delegates of English speaking compatriots, well conversant with American life, who are at present in the west on a tour of investigation, and who will report to their constituents—I believe most favourably—in the early autumn. I expect to plant an active colony of good citizens in the near future from this prolific source.

I have kept up with undiminished interest my annual attendance at the state and county fairs within my territory during the season of 1901. The same solicitous desire by the farming communities that I thus reached, to examine our exhibits and acquire a knowledge of our western lands heretofore shown, was manifested in a marked degree at every exhibition.

The annual state fair held at Pontiac, Mich., during the last week in September, and which I attended, was the largest and most prominent one held in the state during the season. Every large agricultural centre of Michigan was there represented, and great interest was shown by the farmers in the products of our country, which were displayed to the best advantage during the continuance of the fair. I secured a space 130 feet long extending over one side of 'Agricultural Hall,' and occupying a most prominent position. This proved to be one of our very best exhibits.

I was also in attendance, as during previous years, at the Tri-State fair, held in Toledo, Ohio, during last August, in the interest of the three states of Ohio, Indiana and Michigan. Our exhibition was larger than any previous one, and our grains, grasses and other products provoked universal admiration.

I also attended other large fairs, and altogether was in evidence, with exhibits, at fifteen different county and country exhibitions in Michigan and Ohio. Everywhere the same marked interest in the products of western Canada was apparent.

The general results have been most gratifying, and large numbers of the most desirable emigrants have left for the west by this means of advertising.

I continue the advantageous custom of sending delegates from the different localities in the United States under my control to western Canada, and I still find it fraught with increasing benefit to our work. Not a delegate that I have sent out has returned as a bearer of ill-tidings, but each and all of them have given a generous and most favourable endorsement of the country and the people. Many of them write, concerning the agricultural opportunities existing in the west, in terms of unstinted praise, characterizing them as unrivalled and far in advance of their expectations.

In pursuing the purposes of the department nothing has added so much to the success of the work in the United States as the clear, fair and unexaggerated information given by the government agents, of the resources of western Canada and its agricultural conditions, particularly as regards the soil, climate, transportation facilities and opportunities for the successful prosecution of husbandry. Numbers of letters received by me bear unsolicited testimony to the fact that the information contained in our literature and the representations made by our accredited agents in America, in describing our western country, have been verified to the letter from actual observation.

This is surely a source of high satisfaction. A careful continuation of such a judicious course of action will strengthen and develop the work, which, I believe, will assume dimensions in the very near future out of all proportion to our anticipations. Undoubtedly the prospects for largely increased immigration during the coming year are excellent.

Your obedient servant,

M. V. McINNES.

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No. 3.

REPORT OF E. T. HOLMES.

INDIANAPOLIS, IND., June 30, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg leave to submit my report for the year just passed. I have during the year called on a large number of prospective settlers throughout this state, and also some in Kentucky; and have sent a number of settlers to western Canada from both states. I have also had an exhibit at the Indiana state fair, and some of the county fairs. The grain and other produce exhibited caused a great deal of favourable comment, many declaring it was the finest exhibit of its kind they had ever seen.

Almost every farmer in Indiana has heard something of the advantages offered in western Canada, and before very long there will certainly be a large influx of people from this state into western Canada. They are exceedingly hard to move, but will make excellent citizens when they settle there.

Your obedient servant,

ED. T. HOLMES.

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No. 4.

REPORT OF J. YOUNG.

COLUMBUS, OHIO, July 1, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—In submitting my report for the last year, I beg to say that the work in Ohio is meeting with marked success. The inquiries *re* western Canada have more than doubled in number those of the previous year, and three times as many settlers have gone to western Canada this year.

Last fall I visited six county fairs, and distributed over six thousand pieces of literature into the hands of farmers principally. This, with the exhibit shown, had a very good effect. The advertising in the local papers is another very good way of reaching the farmers. During the winter I held several public meetings, and I think I have had my best results from those meetings.

During the year I sent about 20 delegates to western Canada, and I believe that good results will follow from their reports; and if the work be continued along the lines as above, Ohio will in the near future be well represented in western Canada.

Your obedient servant,

J. YOUNG.

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No. 5.

REPORT OF CHARLES PILLING.

GRAND FORKS, NORTH DAKOTA, July 9, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg leave to submit my report for the year ending June 30, 1902, during which time I operated in Minnesota, principally in the central and southern parts of the state. I addressed meetings at Red Wing, Rochester, Spring Valley, Preston, Northfield, Mankato, Owatonna, Faribault, Farmington, Boyd, Monte Video, Renville and Winthrop; at all of which points, with one exception, caused by a blizzard, I had large and interested audiences.

I assisted in arranging the exhibit at the state fair and attended same during its continuance. I may say that this display was one of the attractions in the agricultural hall. At its conclusion I took half of the material and attended the county fairs with same at Austin, Fairmount, Caledonia and Shakapee.

During the year I made three visits to Manitoba and the west, once in charge of delegates, and twice with settlers' excursions.

The rest of my time has been fully occupied in visiting correspondents, making it a point to attend conventions, sales, markets, &c., where large numbers were congregated, distributing literature, and as occasion offered, setting forth the advantages of the country for settlement. When in St. Paul I gave such assistance in the office as was found necessary.

Your obedient servant,

CHARLES PILLING.

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No. 6.

REPORT OF J. M. MACLACHLAN.

307 THIRD STREET,
WAUSAU, WISCONSIN, August 23, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit my report for the year ending June 30, 1902.

During the visit of Mr. Smart, Deputy Minister, and Mr. W. J. White, to Milwaukee in August of last year, I was instructed to visit the northern part of this state for the purpose of locating where I would be in a position to reach more readily, and at less expense, the people in these northern counties.

After looking over the country carefully I concluded that Wausau, in Marathon county, would be the most desirable point from which to operate, it being not a great distance from the centre of the state. Having reported this to the department, I received instructions from Mr. White to come here and open an office. This I did on December 14.

Between July 1 and December 12 I continued my work, co-operating with Mr. Currie at Milwaukee. We attended the state fair held there last year, and our exhibit was visited and admired by thousands of people daily, and it was readily admitted to be the most striking exhibit at the fair.

The fine assortment of vegetables expressed from Winnipeg proved quite an addition to our exhibit, as in size and quality they excelled anything shown by any of the various counties. The samples of coal were also an attraction.

We distributed over 3,500 atlases and other pamphlets. One of the gratifying features in connection with our exhibit, was the numerous questions asked by visitors with reference to the geographical situation of the lands for which we were seeking permanent settlers, the nature of the soil, fuel, climate, &c.

We met with many who had visited the Canadian exhibit at the Pan-American, at Buffalo, and they had nothing but words of praise for the tasteful manner in which it was displayed, and freely expressing the opinion that it surpassed anything of the kind seen there.

Since locating in Wausau I have personally visited in eighteen counties, held twenty-eight meetings, and visited one hundred and three families, principally in the rural districts.

The majority of the meetings I have held have been well attended, and I am pleased to report that the people, both men and women, have been most anxious to obtain all the information possible relating to western Canada.

I have had about two hundred visitors at my office, and in addition to the atlases I have distributed from here, I have forwarded to the department lists representing 1,500 requests for our publications, as follows:—English, 970; German, 390; Scandinavian, 90; French, 30.

I have further issued certificates to nearly one hundred persons, many of them taking a car of settlers' effects. Some of these people have sent back encouraging letters, copies of which I have forwarded to the department.

I have sent out ten delegates from my territory, and those who have returned have reported most favourably on the country, notably among these being the Rev. J. Pind, of Waupaca county, and Mr. John Holmizren, of Bayfield county. The visit of these

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gentlemen will undoubtedly be the means of securing for us a large number of desirable Scandinavian settlers in the near future.

Unlike some of the neighbouring states this part of Wisconsin is not over populated, and there being still large tracts of land held by railway companies, as well as large land corporations, I consequently have met with considerable opposition in my work.

I have completed arrangements to make a display of our exhibit at a number of the different county fairs in the western and northern parts of the state in September and October, and at points where it has never been exhibited. This will give the people in these districts an opportunity of seeing the fine grains, grasses, vegetables, &c., grown in our fertile country, and will also, I am confident, be the means of inducing many first-class settlers to emigrate next spring.

In connection with my work I might add that farmers and stock raisers here are becoming interested in Canadian cattle. Last spring I furnished Mr. Duncan, of Duncan Bros., owners of a ranch near this city, with letters of introduction to several of our stock breeders in Ontario. Mr. Duncan purchased eight head of valuable shorthorns from W. G. Pettit & Son, Freeman; Capt. Robinson, Iddleton; and R. Mitchel & Son, Nelson, and for which he paid the sum of \$1,000. Some of these he has entered at a number of fairs to be held in this state this fall. Mr. Duncan is greatly pleased with his visit to Canada, and speaks in the highest terms of the courtesy of the Canadian people.

Your obedient servant,

J. M. MACLACHLAN.

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No. 7.

REPORT OF W. V. BENNETT.

OMAHA, NEBRASKA, June 30, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit my fifth annual report. From July 1 to December 31, 1901, I had from the district of Nebraska 1,037 settlers, and 56 cars of immigrant movables.

From January 1 to June 30, 1902, I have sent out 1,951 settlers, and 239 cars of immigrant movables, making a total of 2,977 people and 295 cars of settlers' effects.

I could not get an estimate on all who went, but the total value of effects and money taken in by those whom I obtained reports on amounted to \$4,314,995.

Out of the total number who have gone, I have not known of over 12 or 15 who have come back dissatisfied with the country.

With my knowledge of the settlement of newly opened districts and the history of many of the states, I find the percentage is very materially less who dislike, and do not homestead or purchase lands in the Canadian north-west than in any of the western states as they were being settled. I believe with the system of advertising now being pursued, and with the confidence that has been established in the minds of the Americans, that the exodus from the United States will double in the next year.

In my district the prospects were never more promising, and I trust that you will find the work accomplished satisfactory.

Your obedient servant, .

W. V. BENNETT.

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No. 8.

REPORT OF J. S. CRAWFORD.

KANSAS CITY, MO., June 30, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg to report on immigration work for our country in the states of Kansas and Missouri, and tributary territory to Kansas City by rail, for the year ending June 30, 1902.

The failure in crops of all kinds in the south last year had considerable effect in preventing those who would have moved to our country this year as those who needed to sell their land or effects could not do so; this later on will be overcome by the result of this year's crops, the outlook for which is generally good. The number of removals, however, has doubled; there having removed up to June 30, 1902, 1,400 settlers, taking with them the usual car lots of effects. In addition many have driven through with their families and, therefore, did not need to apply for settlers' certificates. One instance of this was met with while on a recent visit to my old home at Birtle, when three 'Prairie Schooners' arrived there labelled 'Oklahoma to Carrot River.'

I have continued to distribute books extensively through the mails and at street meetings. Literature supplied during the year has been of a very valuable kind and much appreciated by those asking for information.

I have sent 225 return men (delegates) for the year. This class of work has been thus far, entirely satisfactory in results as many return to the country with good parties to settle.

Our ranching possibilities are now attracting the attention of quite a number of large ranchmen in my district. One look at our grass and stock conditions determines these men, and soon many will go there to engage in the cattle business.

Office work has largely increased as the result of judicious advertising practised by the department, as many as 50 or 60 letters of inquiry being received daily during the spring. I have an office grain exhibit in which much interest is manifested by callers.

Lack of time and help made it impossible to follow up county exhibitions during last year. Our exhibit at the St. Louis fair produced good results.

In conclusion I beg to say that the outlook for next year's emigration from the south to our country is likely to be much larger than last year; much depends, however, on report of crops sent back to their homes by those already there.

Your obedient servant,

J. S. CRAWFORD.

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No. 9.

REPORT OF W. H. ROGERS.

WATERTOWN, SOUTH DAKOTA, June 30, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—In submitting my report of the work done in South Dakota during the year ending June 30, I beg to say:—

The number of land-seekers and settlers from this state to Manitoba and the Territories during this period reached 2,550. Of this number 1,450 persons, with 265 cars of effects, moved to western Canada. Fully three-fourths of all who visited the country secured land with the view of becoming permanent citizens. In cash and effects they brought, at a conservative estimate, \$1,775,000. Each year we are securing a more desirable class of settlers, both financially and otherwise.

The methods employed were practically the same as those outlined in previous reports, and hence need not be repeated here. There are, however, some features of the work to which I may refer. The 'boom' in South Dakota lands still continues. As a result increasingly large numbers of agents from other states are on the alert to direct the many who are selling, to the states which they represent. This fact has emphasized the importance of personal contact with those people in order to secure the best results. Another feature of this year's work, which has been attended by good results, is the running of special trains which consist of emigrant cars containing stock, household goods, &c., and a requisite number of dismantled sleepers for the accommodation of the families moving. One of these trains had 68 cars of effects, and four sleepers with 225 persons. Another feature which has greatly aided and encouraged me in my work is the number of letters received from those whom I have located in the north-west during the last four years. The tenor of such letters is one of hopefulness, contentment and prosperity.

The prospects for the coming year are certainly good. As evidence of this fact I need only say my correspondence for the first six months of this year is double that of the same months of last year, reaching from 450 to 500 letters per month. And the number of land-seekers is more than double that of the same period of 1901. In a word, if nothing unforeseen occurs, among the multitudes thronging to western Canada, South Dakota will send her full quota.

Your obedient servant,

W. H. ROGERS.

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No. 10.

REPORT OF C. A. LAURIER.

MARQUETTE, MICHIGAN, July 5, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg to submit my report for the year ending June 30. On July 25, 1901, I reported for duty to Mr. M. V. McInnes at Detroit. It was then decided that I should start work in the upper peninsula of Michigan. On the first day of August I commenced work in the County of Houghton, and made my temporary headquarters at Lake Linden. I distributed literature in that and adjoining counties, and did some canvassing. On October 1 I removed to Marquette, my present headquarters. As this territory had never been canvassed before, and owing to the nature of the industries of the country, which are mainly mining and lumbering, seven-eighths of the population being employed in the mines and lumber woods the year round at very fair remuneration, I found difficulties in getting the people interested in the farming industry, and very slow in catching sight of our object; but a liberal dissemination of literature, newspaper articles on the north-west and other methods of advertising, soon opened their eyes and made them realize the numerous advantages offered them in western Canada, and to-day I may say without fear of exaggerating that I am anticipating great results for the coming year. Up to the first of April, I had issued only one certificate, but since that date I have issued sixteen, to thirty-seven people classified as follows:—Seven families numbering twenty-eight persons, seven single men and two married men, who left their families behind but who are expected to either come or send for them at a near date. I have also been instrumental in inducing two French families, numbering eight persons, to remove to the Temiscamingue district, consequently this makes a total of forty-six people that I have forwarded to Canada during the year, and an estimate of twenty-five thousand dollars they have taken with them. I am also aware of several others who left this country for Canada, but I have no definite record of them. The sending of two delegates to the north-west last November from the County of Houghton, to investigate the country and its resources, has proven to be a great advertisement and a great help to me in my work. The written and verbal evidence of those men has done more to enlighten and interest the people of that section than all previous advertising, and I shall attempt in the future to foster that method of advertising. I am now making arrangements to send out delegates from the counties of Marquette, Delta and Menominee, and after their return, and their report is given out, I am positive a stimulus will be given to the movement of prospective settlers to western Canada from this section. I have received during the year six hundred and seventy-two letters of inquiry from within my territory, and fifty-six from other territories. I have answered a great many of them with personal letters, but I invariably mailed literature to every one of them. I have mailed and handed out close on to three thousand pieces of literature, atlases and pamphlets, in addition to those sent direct from the department through my requests. There is a large population of Swedes, Danes and Norwegians in this upper peninsula of Michigan. As a rule they are a very desirable class of people, and make good settlers, and are worth looking after. I hope to be able to secure a good many of them for our country during the coming year. I shall at least make every effort to do so. The new year opens up very favourably for me. I have just returned from Laurium, in the County of Houghton, where I have issued certi-

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ficates to three families, numbering twelve persons, who are going to locate in the neighbourhood of Macleod, Alberta. They have five thousand dollars in cash, and one car-load and a half of effects, consisting of four horses, wagons and harness, farming implements and household effects. One of the party, Mr. Phil. Demare, was a delegate to the north-west last November, when he selected his location. I am informed of six other families who are making arrangements to follow the example of that little party at their earliest convenience, and several others from that same location, who are waiting for the chance of disposing of their holdings to remove to some part of the North-west Territories. I shall make special efforts this coming fall, to attend and make an exhibit at every county fair in my territory.

Your obedient servant,

C. A. LAURIER.

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No. 11.

REPORT OF H. M. WILLIAMS.

TOLEDO, OHIO, July 2, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I proceed to give you a condensed report of my year's work. In July, 1901, I was in western Canada, August and September at the St. Paul office, November at Canada Building, Buffalo, Pan-American. Since November 9, I have been in Ohio, with headquarters at Toledo, endeavouring to make known the many advantages of western Canada as a field for immigration. In the northern part of the state my success in arousing interest in our country has been far beyond my expectations, judging from the number of inquiries reaching me by letter and personal conversations with those whom I have called upon, as well as the interest manifested at public meetings held in various places at the request of the people. Those who have gone from my territory to western Canada say that they found it far exceeded their expectations. I have also received the same favourable report from those who went to see the country but returned to make necessary arrangements, to dispose of their property and then return to Canada to become citizens. They say that it is the greatest country for a poor man, or in fact for any person wishing to secure a home or to make money, that they have ever seen. Many people are now writing me for certificates to go and see, others for rates for car-loads of stock and household effects, wishing to go there this present season. Therefore, in view of the fertility of the soil, the many natural advantages of the country, its past record for the production of all kinds of grain, as well as for dairying and the production of beef, also on account of so many people in this state who want good and cheap lands for homes, together with those who wish to make a safe and profitable investment with at least a portion of their surplus money in lands and in the various ranching interests,—I say in consequence of these many reasons I naturally look for a large immigration from Ohio in the present fiscal year and in the very near future.

Your obedient servant,

H. M. WILLIAMS.

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No. 12.

REPORT OF C. O. SWANSON.

WATERVILLE, June 30, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit to you my annual report, which I shall do very briefly.

During the year I have had three excursions from Montreal, via the Canadian Pacific Railway, and four from St. Paul and Minneapolis over the Soo line. On all these excursions I had large parties, and most of them were bona fide settlers, who have brought hundreds of car-loads of property into the country, as well as considerable ready money. The majority of them came from Minnesota, North and South Dakota, and they have mostly settled in Assiniboia and Alberta. The Scandinavians, as a people, like to settle in colonies, and in making inquiries about the country one of their first questions is, what are the chances for schools, churches, &c. Those who have come into the country as delegates have nearly all taken up homesteads and bought Canadian Pacific Railway land. Some did not because they would have to go so far from the railways. The last party I brought out went back 60 and 70 miles from the railway. They took homesteads and bought Canadian Pacific Railway land.

What the country needs most now is railways. If we had railroads running through the vacant lands of Assiniboia and Alberta, north of the main line of the Canadian Pacific Railway, and I could go into the large Scandinavian settlements in the different states and tell them they could get land within a reasonable distance from a railroad, they would come in by thousands, and the land could be settled and cultivated in a short time.

There is a great interest taken now in our Canadian lands by the Scandinavian people. I have a great many inquiries from men who have money, asking where they can best invest in large tracts of land, and we have a few who have already invested largely. I don't think I would be far out of the way in saying, that half of the names booked by some of the English agents in the above mentioned states are Scandinavians, that is to say, those who have settled in Assiniboia and Alberta. In regard to immigration from Sweden and Norway, I have had more than double the number this year that I have had any year previous. On April 7 I had a party of 50 come at one time. The settlers are doing well. The towns and villages are building up fast, and everything seems to be in an encouraging and prosperous condition.

In reference to the Swedish servant girls, 76 came out this last year, and had no difficulty in securing places. As a rule they give satisfaction, and are in great demand. We have letters from all over the country asking for these girls, but as only a limited number come out, of course a great many of the applicants cannot be supplied.

Your obedient servant,

C. O. SWANSON.

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No. 13.

REPORT OF REV. M. BLAIS.

MONTREAL, June 12, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to acquaint you of the labours completed since a year ago in the interest of colonization in Manitoba.

Apart from several journeys that I have made in the New England states, and another in Illinois, I have laboured in the province of Quebec, and I am happy to say that the success met with causes me to hope for advantage for the future.

Above all I have interested myself in giving lectures and to keep up an immense correspondence, and to organize and accompany to the Canadian west several excursions.

I have to thank the department for the encouragement shown me, by publishing in French, during the month of November, a pamphlet on Manitoba compiled by me.

Your obedient servant,

M. BLAIS, *Priest, O.M.I.*

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No. 14.

REPORT OF DAMASE GAUTHIER.

LAURENTIDES, P.Q., June 30, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—As annual report I have the honour of sending you the following:—

According to the instructions received from the Department of the Interior, I have worked in the eastern states, where there are many people who understand the French Canadian language, and whom I could persuade to come to Canada.

During the months of July, August and September, I visited the regions of Lake Temiscamingue, Lake St. John, the north-west of Montreal, Manitoba and Alberta, in order to have a suitable and precise acquaintance with the centres of colonization, judging that the words of an agent who has seen and who knows the places personally, are more persuasive and more effective. As it was impossible for me to travel in the eastern states at the same time, I wrote my notes and impressions, and I have made them known to a very large number of French Canadians in the United States by publishing them in a Montreal paper, which has a large circulation in New England. I have thus written four articles.

During the nine other months, October, November, December, January, February, March, April, May and June, I travelled in the eastern states in the interests of immigration and of colonization. For this end I visited the families, which I thought could be persuaded, and I have induced several large families to come and live in Canada. But the principal means of persuasion which I have employed, is that of organizing assemblies and giving lectures. As will be seen by reading my weekly reports, I have thus organized meetings and given lectures at the following places:—Holyoke, Chicopee Falls, Three Rivers, Chicopee, Lowell, Nashua, Lawrence, Central Falls, Worcester, Woonsocket, Providence, Manville, Salem, Haverhill, North Adams, Williamstown, Adams, Indian Orchard, Ware, Flint Village, (Fall River), Petit Canada, (Fall River), North Tiverton, New Bedford, Taunton, Marlboro and Fall River. The result of these lectures has been, on the whole, very satisfactory. In a general way, I think I can flatter myself that I have contributed to the change of opinion in the minds of the people with regard to Canada. Far from meeting with prejudice and hostile feeling, I have proved on the contrary that the general opinion of French Canadians in New England has become favourable to emigration, and to colonization in Canada. That is why there has been considerable emigration from the eastern states to Canada. And I believe that the prospects for the next year are still better.

I have distributed amongst Canadians in the United States more than a thousand pamphlets and maps amongst French Canadians in New England, who have informed me of their serious intention of coming and settling in Canada.

The subject matter of these pamphlets and maps, as of my lectures, was Canada in general, Temiscamingue, Lake St. John; the north of Montreal, Manitoba and Alberta.

Your obedient servant,

DAMASE GAUTHIER,
Immigration Agent.

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No. 15.

REPORT OF THE LAKE ST. JOHN REPATRIATION AND COLONIZATION SOCIETY.

QUEBEC, July 10, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit to you the report of this society's operations for the fiscal year ending June 30, 1902.

It is proper to note at once the most encouraging fact that last year was decidedly an epoch of progress and advancement for the cause of colonization, particularly in the region of Lake St. John, and that the present year promises to be still more fruitful, thanks to the increased interest taken in our work by the two governments.

The documents annexed to the present report are an eloquent proof of this progressive movement.

Here is the number of new settlers who arrived during the year 1901-2:—

From the United States and Canada	2,077
France	163
Belgium	79
Norway	33
Fiuland	162
Total	2,514

Being an increase of 591 new settlers over the year 1900-1.

From the foundation of our society in 1898, we have had the honour of directing 6,977 settlers to our territory, those settling in each year being as follows:—

	New Settlers.
1898	1,322
1899	1,692
1900	1,855
1901	2,108

Making a total of 6,977 new settlers, who under the auspices of our society have gone to establish new parishes and to materially increase the population of the older villages. We are particularly pleased to direct your attention to the fact that the last census is the best confirmation of the result of our society's work, in acknowledging an increase of over 11,000 upon the figures of the census of 1891, the total population of Lake St. John alone being now 20,784.

DELEGATIONS.

Delegations from various parts of the province of Quebec and of the United States have visited the Lake St. John country as usual, and we particularly ask your attention to the fact that the number of delegates from the United States has been larger this year than ever before, which leads to the conclusion that the attention of our fellow-
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countrymen living under the Stars and Stripes is now being concentrated upon the fertile valley of Lake St. John. To avoid any accusation of exaggeration on this subject, we will quote the exact words of the local government colonization agents, from the departmental report. Thus at page 157, Mr. Ferdinand Audet, the representative of our sister society, that of Quebec says: 'The settlers who go to the Metapedia valley, some principally from the eastern townships, and those who go to Lake St. John, are, for the most part, from the United States.' Mr. L. E. Carufel, of the Montreal society, adds (page 116): 'The few lectures which I delivered in the United States in the course of the year, in company with Mr. Dupont, the agent of the Lake St. John Railway Company, have resulted in bringing back a large number of our emigrated fellow-countrymen to establish themselves in that attractive region, now so advantageously known, but I am unable to give the exact number.' And lastly, Mr. Marquette, immigration agent, states (page 193): 'This year more French Canadians than usual have returned from the United States. Several of them have gone to Lake St. John.' Even the Hon. Mr. Turgeon, in his departmental report, is pleased to recognize the popularity of Lake St. John. At page 111, he says: 'The movement of settlers towards our great regions has not fallen off. I am even able to say that it has rather increased so far as the north of Montreal and the Lake St. John country are concerned. This last mentioned locality, in particular, appears to largely profit from the advantages offered by the Quebec and Lake St. John Railway Company. It is well known that settlers, on their way to take up lands, are given free transportation over this line with their families, and less than half rates are charged those who desire to visit the country and inspect its capabilities for settlement.' With such testimony as this in its favour, our society may well continue its work full of hope for the future.

All the delegates who have visited the lands in the Lake St. John valley, have made enthusiastic reports, and we have the honour to submit several extracts from them.

From January 1 to December 31, 1901, we have had 166 delegates, representing 94 parishes of Canada, the United States and Europe, 36 counties of Canada, 6 states of the American Union.

LECTURES.

In the course of the year 1901, 22 lectures were given by our society in the United States and in Canada. About 12,000 people were present at these lectures, which, for the most part, were illustrated by agricultural scenes in the region of the Lake St. John. If the number of these lectures is a little less than that of last year, it is due to my visit to Europe, with Mr. Barthe, one of our directors, of which I shall have occasion to speak later.

OUR ORGANIZATION.

The organization of the society for the reception and distribution of settlers throughout the district has made good progress. We have now at our disposal, thanks to the gracious assistance of the Dominion Government, two fine buildings to furnish shelter to newly arrived settlers. One of these buildings is at Roberval, the terminus of the railway, and the other at Peribonca, the central point for the distribution of settlers for the entire north and west of Lake St. John. These depots for immigrants are a marked advantage for the new settlers, saving them the expense of board and lodging.

In the Roberval building, a branch office of the society has been established, and a representative appointed, Mr. J. B. Carbonneau, whose duties are to receive and to guide the settlers upon their arrival. Another guide and guardian has been appointed in May last, named for the depot and district of Peribonca. Our intention is also to have a representative for the district of Chicoutimi, near which place we have commenced, during the past year, to extend our field of operations.

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NEW SETTLERS.

It is pleasing to note that during the last few years the new settlers who came from the United States and elsewhere, are in better circumstances than those of former years. Sometimes, still, it is true that a settler comes to us with plenty of energy and good-will and his axe for baggage, but such cases are more and more rare, and nowadays the average settler possesses more resources. Thus last year we have had complete car-loads of settlers' effects, comprising household goods, animals and agricultural instruments, representing 1,220,000 pounds, as well as incomplete loads of similar effects, amounting to over 2,530,000 pounds, giving a handsome total of 3,520,000 pounds of freight belonging to settlers who have gone to make their homes in the counties of Lake St. John and Chicoutimi.

INDUSTRIES.

Industries have taken a truly extraordinary bound in the Lake St. John country during the past year, new enterprises springing into existence on every side. Pulp, for the present, possesses the greatest attraction for the capitalist. And let us add, sir, that in our field of operations, the capitalist, in nearly every case, is the settler himself, assisted by some of our Quebec fellow-countrymen. Thus it is that Chicoutimi, Jonquière and Peribonca are now on the high way of progress, while the people of Roberval, of Quatchouan and of Metabetchouan are bestirring themselves in a rivalry of vigour and energy for the purpose of developing their wonderful water powers, of creating new villages, and even of constructing new railways to facilitate the operation of these great and laudable enterprises. And I have no hesitation in affirming that in the very near future, the falls of the Portage à l'Ours and those of the Peribonca at Honfleur will undergo a similar transformation.

It is needless to add that these numerous industries constitute a great attraction to the new settler, especially to him who has not much funds at his disposal. He is always certain of finding remunerative employment, for the wages paid to-day are from \$1 to \$1.50 per day, or for work in the *chantiers*, \$20 to \$25 per month and board. Another source of revenue to the settler is the sale of his wood to the pulp manufacturer, who pays \$3, \$4, and even \$5 per cord for wood cut down for the clearing of the ground, thus enabling the settler to make money out of the clearing of his own lot.

The dairy industry shows a constant and very satisfactory growth, full of encouragement for the future, and has given such reputation to the pasture lands of Lake St. John as almost to cause a preference in the market for the dairy produce of the district. A study is now being made of the different methods of packing and preparing the products of this district for direct export to Europe, and we are promised, within two years, a special line of trans-Atlantic steamers for the exclusive transport of the products of the two counties of the Lake St. John and Chicoutimi.

A trade, or rather another industry, which appears to be assuming satisfactory proportions, is the raising of stock on a large scale. Lake St. John mutton is already much esteemed upon the markets of Quebec and Montreal. The beef of the region has also attained a certain degree of preference, and 95 complete car-loads have been shipped during the year, containing 2,898 head of cattle.

IMMIGRATION AND REPATRIATION.

During the last twelve months good progress has been made towards completing our organization for receiving those immigrants who prefer eastern Canada for a habitation to the North-west. We have succeeded in installing a new colony of Finlanders and French in Boileau township. Many acres are already cleared, and have been sown down this spring. A hundred and seventeen Finlanders and thirty Norwegians have

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already arrived and are at work there, labouring for the success and the progress of their new country.

As already reported, Mr. Ulric Barthe, one of our directors, and myself have visited Europe in the interest of our work, to establish agencies.

The Hon. Mr. Gouin, Minister of Public Works and Colonization, whose business called him to Europe last November, was good enough to suggest that we should make our visit coincide with his own, and thanks to his powerful assistance we were enabled to establish a plan of operation which will enable the society to draw from the other side of the ocean, the most desirable class of immigration for this province, and particularly for the region of Lake St. John.

We were enabled to largely profit by the influential relations of the hon. minister abroad, and especially by his interviews with the French authorities, and to ascertain the exact manner in which it is necessary to proceed in the future, in order to insure the success of our work. The appeal to immigration in continental Europe in general, calls for extreme caution, seeing that each country has its own colonies, and views with a very ill-grace all movements calculated to divert its population elsewhere. We have come to the conclusion that outside of a general surveillance and of an annual visit to the branches, the best work can be done by people of the country itself, perfectly knowing it, and consequently able to manœuvre with all the necessary prudence. We were also fortunate enough to find there influential men, well informed about Canada, and well disposed to give their disinterested assistance. Our European branches will rather be bureaux of information than immigration and colonization agencies. We have thought it better not to attempt too much, but to proceed with greater method upon a smaller scale.

At Paris, the Hon. Hector Fabre, who showed himself most obliging to us, kindly offered to place at the disposal of our future agent the gratuitous use of one of the offices of the Canadian agency, at No. 10 Rue de Rome.

I must gratefully add, that thanks to the letters of recommendation from Mr. J. G. Scott, General Manager of the Quebec and Lake St. John Railway, the expenses of this journey were considerably reduced by the fact that our two delegates were favoured with gratuitous transportation on the trans-Atlantic steamers and the European railways.

SETTLERS' EXCURSIONS.

Our two settlers' excursions of last year were a real success from every point of view, as well for numbers as for results. Several farmers who took part in these excursions, profited by their visit to buy lots of land, and several important transactions which occurred on these occasions have been reported.

No less than 828 farmers took advantage of these excursions, for which the railway company gave them the nominal rate of \$1.50 from Quebec to Roberval and return, a distance of 380 miles, in order to enable them to visit this attractive part of the province of Quebec, which is now the 'rendez-vous' of new settlers.

MINISTERIAL JOURNEY.

Outside of these two settlers' excursions 'the granary of the province of Quebec' was also favoured with a ministerial visit. Hon. Mr. Gouin, accompanied by a score of journalists and by several of our directors, made the journey under most favourable circumstances, with a result which is to the undoubted benefit of colonization in general and of the Lake St. John district in particular.

On October 15 last, three lady journalists of Montreal, Misses Gaetane de Montreuil, of *La Presse*; Madeleine, of *La Patrie*, and Colombine, of *Le Pionnier*, embarked in their turn also to visit the region of Lake St. John, and to study there on the scene the life of the settler. Upon their return, these ladies were good enough to relate their

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impressions of the journey before the largest and one of the most select audiences ever assembled at the Institut Canadien. Applause was not lacking, and the newspapers, on their side, were filled with the most flattering eulogies.

MEANS OF COMMUNICATION.

As in former years, the local government found means to subsidize a special steam-boat service for colonization. There are actually fourteen steamers on the lake forming different lines.

Ashore the roads are the best that can be desired, especially for the new colonies. Several old parishes in various parts of the province would have to blush for their routes if they were compared with those of Lake St. John.

Telephonic communication has also been very much improved, and now all the colonies of Lake St. John are connected by it with the parishes of the County of Chicomitimi.

TRANS-CANADA RAILWAY.

Another improvement in the way of communications, which becomes more urgent every day, is certainly the new Trans-Canada Railway, traversing the region of Lake St. John. The federal government has already voted for this purpose a subsidy to insure the construction of sixty miles. We have been promised that the local government is to consider the subject during the present session. We hope that we shall not be disappointed, for the future of the prosperous region which is to-day the object of our efforts, depends entirely upon the prolongation of the Lake St. John Railway, and we venture to believe that the local government, in whom our hopes are now centered, will be able to satisfy us that we have not waited in vain. The Hon. Mr. Gouin himself stated, in the course of his journey, that this improvement was an 'important want,' and he has promised us that he would favour the project whenever the local House would be called upon to consider it.

OUR SOCIETY AND OUR WORK.

Over 800 members now form our society, nearly 400 of whom are settlers of Lake St. John, who are the subject of our efforts. This is a great honour for those interested in our work, as well as for this fertile valley. It clearly shows the interest which the colonists themselves take in the development of their new country. Above all, it gives us pleasure to see that Messrs. the Curés have subscribed their names at the head of the lists of subscribing members. We are, therefore, in a position to show that our society unites all the best elements of our population in order to do effective work, and to assure the progress which we have so much at heart. And when we shall have occasion to solicit government assistance, we hope that they will remember the enormous work capable of being done with such small resources by our society.

Already the federal government has recognized our services. For this we are grateful. It placed us in a position to very much improve our organization, and we are now in a position to carry on good work upon a much larger scale, and to meet, at least, our most pressing wants. Now that our field of work is much more extended, it is unnecessary to say that we rest much of our hopes upon the governments, and particularly in view of all the work which we have been able to accomplish with such small resources.

Your obedient servant,

RENE DUPONT,
Secretary.

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No. 16.

REPORT OF A. RIBOUT.

MATTAWA, ONT., July 12, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg leave to submit to you the following report on my work for the year ending June 30, 1902.

From July to October I devoted my time to visiting our colonization districts, encouraging the new settlers and giving advice to those I had brought in. During the winter months I have delivered in the eastern states and in different places in the province of Quebec 21 lectures, illustrated by means of a powerful acetylene lantern, which I carry along with me, with suitable views. In every case the attendance was above expectations and a very keen interest was displayed. During my lectures, I have called the attention of my hearers to the advantages offered by New Ontario as a centre of colonization for people who possess a very small capital. I have also called their attention to the magnificence of the North Temiscamingue, in the County of Pontiac, province of Quebec. The result of those lectures, together with the literature distributed in every place, was that a great number of visitors or prospective settlers went through the country this spring, and that all are satisfied with what they saw.

At our last excursion over 200 people went to Temiscamingue to see the country, and they were well pleased. We had people from the eastern states, Quebec, Montreal, Ottawa and Hull. The Hon. J. L. Tarte, Minister of Public Works, and the Hon. Lomer Gouin, Minister of Colonization for the province of Quebec, who attended that excursion were surprised and charmed with that country.

One hundred and fifty-seven families settled during the year 1901-2 in the New Ontario and the Temiscamingue regions, as follows:—French River Settlement, 16 families, coming from the province of Quebec. Warences in the townships of Dunnett, Casimir, Appleby and Jennings, 11 families, coming from the eastern states and province of Quebec. Verner in the townships of Caldwell, Badgerow and Gibbons, 26 families, coming from eastern states. Bonfield in the townships of Bonfield and Ferris, 14 families, coming from the province of Quebec. Mattawa in the townships of Papi-neau, Cameron, Mattawan and Colvin, 9 families. New Liskeard in the open townships of that settlement, 7 families; but a great number settled there during the year through the Bureau of Colonization at Toronto, all these settlers coming from the province of Ontario; that settlement is progressing very rapidly, and counts now about 500 voters.

Algoma East, in the townships surrounding Chelmsford, 15 families, coming from the United States, and 21 families went to Sault Ste. Marie. I have also directed 11 families, coming from the eastern states to Mr. R. A. Burriss at Port Arthur.

In the North Temiscamingue, County of Pontiac, 27 families, coming from the United States and province of Quebec, settled there this spring; and I must say that if we had better means of access and cheaper rates I have no doubt that over one hundred families would have settled in that country this year.

The capital in money and stock taken in by those I have a report from, amounted from \$200 to \$800 each; some had \$1,000. I must also say that a number of families went to some of those places without calling at my office for particulars; they were directed by the Society of Colonization of Montreal, and by the Immigration Aid Society of Ontario, No. 1, at Ottawa.

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I attended to a very large correspondence this year. I have answered over 700 letters of inquiry and I have distributed by mail through the eastern states over 2,000 pamphlets and 400 maps concerning the New Ontario and the Temiscamingue districts. I have also distributed a certain amount of pamphlets concerning the Manitoba and North-west Territory, these having been asked for very often.

For the Temiscamingue region I am glad to say that the prospects are better. The Ontario government is building a railroad from North Bay to New Liskeard, and a charter has been granted to a company for the prolongation of the L. T. C. R. from Temiscamingue station to the North Temiscamingue on the Quebec side. I consider that the North Temiscamingue region is one of the finest if not the finest in Canada, having soil of first quality and suitable for every person, rich or poor.

The Ontario government is making great improvements on colonization roads. The Quebec government by the recent visit made by the Hon. Minister of Colonization seems to be well disposed to make also very great improvements in that splendid settlement.

I am sure that this region will soon be one of the most important in Canada for agriculture and other industries, being very rich in minerals, in forestry products, and being well watered with numerous and important water courses very easy to develop.

Your obedient servant,

A. RIBOUT,
Dominion Immigration and Colonization Agent.

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No. 17.

REPORT OF R. A. BURRISS, CANADIAN GOVERNMENT AGENT FOR NEW ONTARIO.

PORT ARTHUR, ONT., July 14, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg leave to report as follows with respect to the immigration work done in western or New Ontario, for the year ending June 30, 1902. In order to be as concise as possible I will arrange it under the following heads, viz.: 1. Plan of work. 2. Results. 3. Prospects for 1903.

1. The plan of work which I find the most successful is, first to get the people interested in the advantages offered in our districts by placing before them reliable information regarding the mining of gold, silver, copper and iron, our lumbering and fishing industries, besides a land rich in agricultural possibilities with soil remarkable fertility and unlimited productiveness. In addition to these advantages, a settler is offered a free 160 acres of land covered with timber, affording him at once a visible means of support.

Various means are resorted to in order to place these advantages before the people. No advertising is done after the ordinary real estate method. Articles designed to awaken an interest are written for religious and secular papers throughout the United States, which are published, to a large extent, free of charge. Special pamphlets containing articles written by settlers in the various colonies are published. Circulars called 'Questions Asked and Answered,' New Ontario souvenir post cards, memo. books and maple leaf brooches are sent to interested parties.

During the year about five tons of advertising matter has been distributed, and it is estimated that two and a half million papers must have been printed in Canada in which some reference was made to New Ontario, while 90,000 different articles of advertising matter and letters were sent to the United States and Europe and placed in the hands of inquirers for reliable information.

A large number of representative men are secured yearly to pay the district a visit. These men, realizing the advantages attainable here, frequently turn their homes into veritable depositories for information, and many of them deliver lectures and otherwise help in the work.

Possessing a thorough knowledge of the wants of the people, and having entered this work with the prime motive of the improvement of the condition of the renting farmer and others who are being oppressed, and being located in the very heart of New Ontario, my opportunity for promoting the work is excellent in every particular. My plan of work in the field is thoroughly systematized. First, attract the attention of the would-be settler; second, afford low transportation to the country; third, supply free temporary homes for families, and look after their immediate wants; fourth, assist the settler to procure a free claim by sending him to a colony and placing him in the hands of a competent land guide; and, fifth, take a general interest in his material, moral and spiritual welfare until he is established and practically independent.

2. Results. This year has witnessed an unprecedented influx of settlers into the Rainy River valley, and these are not merely settlers of limited means, but men with capital who come to invest their money in improved farms. The greatest difficulty met with in the colonization of this wooded country is the lack of road accommodation. It

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has been utterly impossible to secure sufficient aid to establish colonization roads fast enough to accommodate the incoming settler. In many instances in Rainy River and other valleys, settlers have suffered great inconveniences and loss of time for the want of adequate roads in the townships surveyed. These wants are being remedied as fast as possible, and we trust that within a year or so more the road work will be in advance of the settler. Recently 144,240 acres of land have been surveyed and thrown open to free grant in the Rainy River valley alone. The completion of the Canadian Northern Railway from Port Arthur to Winnipeg has facilitated the settlement of this great valley.

The White Fish River valley on the Duluth branch of the Canadian Northern, south-west of Port Arthur 30 miles, has witnessed during the year a phenomenal growth. The prosperity of the settlers last year has had the desired tendency of bringing their friends, and results have been satisfactory. More colonization roads are being constructed and school houses and churches are being erected, and there is every evidence of prosperity and thrift.

The Finlanders who were located in the township of Lybster, in the White Fish River valley, are proving themselves valuable settlers, and are constantly being added to. We are not in possession of the exact figures, but it is affirmed by those who co-operate in the location of Finlanders that more than 300 came to Port Arthur and Fort William in the past year. They all seem to be thrifty and contented.

The Slate River valley, south-west of Fort William, has witnessed an unusual growth this year. At one time five cars of settlers' effects and one coach containing 35 people from Faulkton, S.D., came through to this valley via St. Paul and Winnipeg. Several thousand acres have been purchased by people from South Dakota and Illinois. These men were all practical farmers, some having been renters of large farms while others sold out and came here in order to find a climate better adapted to mixed farming and stock raising.

The colony established in Dorion township on the Canadian Pacific east of Port Arthur, is assuming substantial proportions. Several families have arrived from England and the United States, and a store and post office have been established.

The Ontario Experimental Farm is located at Dryden, on the Canadian Pacific Railway. The settlement in this portion of the district has not been as satisfactory as we would desire owing to the fact that while all of our other land is free grant, there is a charge of 50 cents per acre placed on land at this point; however, the settlers who are coming in are satisfied and prosperous.

The townships of Gorham and McIntyre, north of Port Arthur, on the proposed line of the St. Joe railroad, are being settled mostly by French Canadians from Wisconsin and Minnesota, and by Italians. New colonization roads are being established.

In the township of Oliver, all the partially improved farms available are being purchased by well-to-do settlers from abroad. One farm was recently purchased by a man from South Dakota with a family of ten, and the owner of three fine teams. His enterprise has been the astonishment of some of the old, slow-going settlers.

The vacant houses to be seen in Port Arthur and Fort William three years ago are all filled, and rent has advanced 50 per cent. Hundreds of new residences and places of business are being erected and signs of prosperity are visible on all sides.

The Pigeon River Lumber Company from the state of Michigan have erected mammoth saw-mills in Port Arthur and are employing a great number of men. This industry alone has been influential in bringing many valuable families to our districts.

More than a thousand people have arrived from Europe and the United States, some bringing car-loads, and others from 300 to 10,000 pounds of effects. Some 33 car-loads of effects have been handled from eastern Ontario. Few go away, and our settlers from the eastern provinces are lavish in statements of satisfaction.

Prospects for 1903 are good. The knowledge of the advantages available here is becoming widespread. The railroads and steamboats offer low transportation. The policy of the people everywhere is becoming 'Build up New Ontario.' With our six-

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teen million acres of agricultural land to the north of us, we can give homes to many thousand families right in the heart of this great Dominion.

I know of no more promising field on the continent or place where men of limited means can acquire a competency sooner, and where wealth can be utilized to better advantage. We must invite enterprise and capital, for 'the basis of a nation's prosperity is the broad shoulders of her farmers.'

Your obedient servant,

R. A. BURRISS.

No. 18.

REPORT OF THE GENERAL AGENT OF THE MONTREAL COLONIZATION SOCIETY.

MONTREAL, August 22, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit to you the report of the Montreal Colonization Society for 1901-2.

The total number of persons registered at the office on Notre Dame street was 2,164. The locations selected by the settlers have been as follows:—

North of Montreal	1,548
Matapedia and Gaspé	189
Lake St. John	140
Lake Temiscamingue	98
Northern Ontario	142
Western Canada	47
<hr/>	
Total	2,164

Out of this number 149 came from the United States of America, and 113 from Europe. The repatriation movement continues under favourable conditions, and the European immigration shows a notable accentuation. Thus, the good results of the propaganda made during the World's Exposition in 1900 commence to manifest themselves, and the class of settlers that comes to us is excellent.

The increase shown in favour of the districts of Matapedia and Gaspé is noteworthy. This is without doubt due to the reduction in transportation fees of the settlers and their effects over the Intercolonial Railway. By means of these new facilities the work of colonization will experience an extraordinary impetus, because those districts are magnificent and very rich in most varied resources.

In regard to the district of Labelle, the progressive movement already pointed out, will not be retarded. With the assured extension of the railway to Nominiguet, it is easy to foresee that, through the operations of the society, there will be a great increase of settlement in that district. The nature of the soil, at the porch of the Laurentides, permits us to establish there a large colony of farmers, living exclusively upon the productiveness of their lands, and enjoying the advantages and conveniences arising out of the presence of numerous water powers. With good markets, with the dairy industry, cattle raising, and the cultivation of the soil as practised to-day, there are found, taken as a whole, in these regions conditions of life very perfectly acceptable.

The Canadian Pacific Railway now find the Labelle line one of the most profitable lines of their immense system. During the last year there has been an increase of 25 per cent in the general receipts of this line, and this fact alone suffices to prove the prosperous and progressive state of the district.

If the promoters of the railway north of Montreal, the success and future of which can no more be doubted, would extend their praiseworthy undertaking much further

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on, as far as, for instance, the neighbourhood of Lake Baskatong, this road with the one to Lake Temiscamingue, at the extreme west of the same district, would become arteries for the diffusion of activity and life into the richest territory of the old provinces. The construction of these two railways would, in fact, mark in the annals of Canada an era of unheard of progress in colonization.

The work of our society, sir, only counts for a minimum proportion in the expansion movement and the prosperity in which the Canadian people justly rejoice, but the society is ambitious to continue its efforts and further to increase its efficiency by all legitimate means.

Your obedient servant,

T. A. BRISSON,
General Agent.

No. 19.

REPORT OF C. J. BROUGHTON.

927 MONADNOCK BUILDING,
CHICAGO, ILL., June 30, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to herewith submit my annual report.

During the past year five hundred and sixteen souls left this territory for western Canada, they had twenty-six car-loads of emigrants' moveables and live stock, and in the neighbourhood of one hundred and fifty thousand dollars. As in previous years the exhibit at the state fair at Springfield was a great success and attracted the attention of thousands of people. I think this coming year we can show an increase of 75 to 100 per cent.

Your obedient servant,

C. J. BROUGHTON

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No. 20.

REPORT OF J. C. DUNCAN.

OMAHA, NEBRASKA, September 23, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit my report of the year 1901-2 as assistant to W. V. Bennett, with headquarters at Omaha. The results of the work there were very satisfactory, and emigration from that district is steadily increasing. About one-half of my time was spent travelling and balance in office.

On July 5 in accordance with instructions received from Mr. White, inspector of agencies, I went to Oklahoma to assist J. S. Crawford with exhibit at El Reno; spent about one month there with exhibit, which attracted a great deal of attention. On Oct. 1 I had orders to proceed to Buffalo to assist with the work at the Canadian building at the Pan-American Exposition, which closed Nov. 2. I then returned to Omaha, where I remained until June 19, when acting under instructions from the department I came to Indianapolis to take charge of the work in Indiana.

Your obedient servant,

J. C. DUNCAN.

No. 21.

REPORT OF J. H. M. PARKER.

DULUTH, MINN., July 1, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—In submitting my sixth annual report I will briefly state the work done from my office and the number of settlers sent to Western Canada in the past twelve months.

The number of settlers sent, including those that went to New Ontario and British Columbia besides Manitoba and the North-west Territories, was 980, with 78 cars of household goods and stock, and about \$450,000 cash, or an average of \$500 each. Besides these a large number of colonization companies bought up large tracts of lands to sell again to settlers. The Saskatchewan Valley Land Company was formed through my efforts and purchased over one million acres, and they have already sold most of their holdings.

During the month of August I attended a number of county fairs and distributed a lot of pamphlets. These fairs were well attended, and our exhibit attracted a lot of attention.

During the months of December, January, February and March I gave 42 stereopticon lectures, showing views of western Canada, speaking in English and French when necessary. These lectures were well attended, and there is no question in my mind that this is the very best mode of advertising we have tried, inasmuch as every man that comes is there for information, and while the lecture is in progress the picture is before them. Immigration in the next year will more than treble the past year.

Your obedient servant,

J. H. M. PARKER.

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No. 22.

REPORT OF T. O. CURRIE.

MILWAUKEE, WIS., September 27, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg leave to submit to you my report for the year ending June 30, 1902. Shortly after submitting my last annual report, I found out that vast quantities of land in the northern part of this state were open for sale, not only by railroad companies, but vast regions that had been purchased by lumber companies from which all the pine timber had been cut off. These companies offered the lands for sale very cheap. Wealthy corporations had stepped in and bought tens of thousands of acres, and put forth every effort to secure the attention of all home-seekers, not only from Wisconsin, but from many other states. Their agents were able to secure transportation to travel here and there at leisure in order to secure settlers to populate those lands, while we were compelled to pay for every mile we travelled in the state. Previous to this we had the railroad companies to work against, but this year we had wealthy corporations as well to thwart our efforts in sending settlers to Canada, but we were not to be daunted. The first proof we found of their energy was while attending the different fairs throughout the state last fall, when it was plainly revealed to us that they did everything in their power to prevent us from securing space at the different fairs in order to make our exhibit. But we were fortunate enough to have won a warm place in the hearts of the people in this country, of which so many are ex-Canadians, to give us space at each fair, and we received nothing from the public but the kindest of compliments and best wishes. I am pleased to inform you that notwithstanding the opposition, we have been able to exceed our most sanguine expectations, and have sent from this state one thousand one hundred and twenty-two people, with eighty-seven car-loads of freight, bringing with them over three million five hundred dollars (\$3,000,500) in capital, and I am glad to say that a vast majority of them are ex-Canadians or the descendants of the grand old mothers and fathers who left Canada many years ago in hopes of bettering their condition here, but have become somewhat dissatisfied with the present condition in this country. Everything here to-day points to a crisis in the near future; no matter what others may say, I desire to inform you that there is a dissatisfied feeling among the most broad-minded, liberal and intellectual settlers of this country, that labour is not receiving its just reward, and while our efforts in the past, I feel have been very successful, I believe if the present state of affairs continues here, that immigration to Canada may be fully doubled within the next twelve months. I earnestly hope that by a full explanation of our liberty-loving constitution, the only form of government in the world that I know of where the people are supreme, and by policy and principal we may be able to win many thousands more to become settlers of Canada, my native land.

Your obedient servant,

T. O. CURRIE.

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No. 23.

REPORT OF JAMES N. GRIEVE.

SAULT STE. MARIE, MICHIGAN, July 5, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit my annual report for the year ending June 30, 1902. The emigrants who went from my territory to different points in Canada during the twelve months numbered 2,175 souls, distributed as follows:—

To Ontario.....	734
Quebec and Maritime Provinces.....	746
Manitoba and the North-west Territories.....	695
Total.....	2,175

Taking with them 16 car-loads of settlers' effects besides many thousands of pounds in less than car-load lots.

This, as you will see, is a gratifying increase over the figures of last year. While the movement to the North-west does not show any material gain, yet upon the whole I feel safe in saying that the year 1901-2 has been the most successful in the history of the work in this state. The same mode as last year of exhibiting samples of western Canada's grain and grasses was used this year, the first exhibit being at the Michigan state fair held at Pontiac, where a very nice space was allotted to us. As in former years our exhibit was credited with being the finest on the ground. This exhibit was placed in position by Mr. M. V. McInnes, of Detroit, and myself, with the help of two assistants, and was displayed during the entire week of the fair. It is impossible to give anything like an approximate idea of the number of visitors we had during the week, but there must have been at least one hundred thousand people. At the close of the fair we divided the exhibit, Mr. McInnes taking one part and myself the other. I then took in as many of the county fairs as the season would permit. At some of these I was very ably assisted by Mr. Lent, of Allegan county, who had just returned from a trip through the North-west and was thus well fortified to talk intelligently to the hundreds of farmers we met every day. This system of advertising in my opinion is the very best that can be adopted, and should by all means be kept up. The only drawback is that the shortness of the season limits the number of fairs one person is able to attend. I also continued the plan of holding meetings in different localities, but I am strongly of the opinion that in order to make the meetings as interesting as possible a good stereopticon, with views of the North-west, should be furnished each agent who is capable of taking up that line of work.

The Commissioner of Crown Lands for the province of Ontario has kept my office well supplied with maps, pamphlets, &c., treating principally with the newer portions of the country, and I have thus been enabled to interest a great many people, and have already sent a number of families into the newer parts of the province, principally into the district of Algoma and along the line of the Canadian Pacific Railway. The prospects for the coming year are good. The magnificent crops last season throughout the entire North-west have proved a great factor in promoting emigration, and with a fair crop this present season I believe the next year will see more people going from this state than during any year in the whole history of western Canada.

Your obedient servant,

JAMES GRIEVE.

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No. 24.

REPORT OF SVEINN BRYNJOLFSSON, AGENT TO ICELAND.

OTTAWA, September 30, 1902.

The Superintendent of Immigration,
Ottawa.

SIR,—In compliance with instructions received, I beg to submit the following report of my work for the year ending June 30, 1902.

After having been appointed immigration agent for Iceland, I left for Iceland on July 25, 1901. I have made three round trips through the country, two around the coast by the mail boats and one on horseback, besides several smaller trips by land, visiting farmers and fishermen and explaining to them the resources of western Canada and its advantages for farming.

I am pleased to say that my work stirred up quite an interest in Canada, which showed itself in numerous applications to me for information, and that at the end of last June I was able to bring out myself 240 emigrants, in addition to 81 who came previously, the total number for the year being 321.

The prospects for next year are very favourable.

Your obedient servant,

SVEINN BRYNJOLFSSON.

PART III.

DOMINION LANDS SURVEYS

SURVEYS.

REPORT OF THE SURVEYOR GENERAL.

DEPARTMENT OF THE INTERIOR,
TOPOGRAPHICAL SURVEYS BRANCH,
OTTAWA, September 10, 1902.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior.
Ottawa.

SIR,—I have the honour to report as follows upon the operations of the Topographical Surveys Branch during the year ending June 30, 1902.

Thirty-six survey parties were employed during the last half of 1901, and the same number during the first half of 1902. In addition thereto, several parties were working under the direction of the Commissioner of the Yukon Territory.

The season of 1902 has been the most unfavourable for surveying operations in many years. The prevalence of rain with resulting floods in the rivers and high water in the marshes and ponds has interfered seriously with the surveys. The large increase in the cost of labour and supplies has been a further source of trouble to surveyors working under contract. Under such conditions, and at the present contract rates, some surveyors may find it difficult to earn their expenses and to have enough left as remuneration for their services.

MANITOBA.

C. F. Aylsworth, D.L.S., has been engaged during the past season in making surveys in central Manitoba. He has resurveyed townships 11 and 12 in ranges 7 and 8, township 15, range 3, township 16 in ranges 1 and 2, township 17, range 2, all west of the principal meridian, and township 13, range 7 east. He has also surveyed a townsite in section 11, township 13, range 6 east, in which section the Canadian Pacific Railway station of Tyndall is situated. Mr. Aylsworth remained in the field until the beginning of April, 1902.

R. Bourne, D.L.S., has been engaged up to February of this year in making surveys in the country lying between the principal meridian and Lake Winnipeg. He retraced and remarked the principal meridian between the fifth and sixth base lines and then produced it northward as far as the seventh base. He also ran the meridian outline between ranges 1 and 2 E., through townships 19, 20, 23 and 24, and also the seventh base and the north side of the sixth correction line across range 1. He also retraced the sixth base across ranges 3 and 4, and the south side of the fifth correction line across range 1. He finished his season's work by subdividing township 19, range 2, east of the principal meridian.

J. A. Côté, D.L.S., has been employed continuously up to the end of May of this year in making surveys in south-eastern Manitoba, in the neighbourhood of the Manitoba and South-Eastern Railway. He has completed a survey of the north boundaries of townships 1 and 2 in ranges 9 and 10, the north and east boundaries of township 2, range 8, and the east boundary of townships 1 and 2, range 9, and townships 3 and 4, range 12. He has subdivided portions of townships 4 in ranges 9, 10 and 11, of townships 3 in ranges 10 and 11, and of township 1 in range 8. He has also made a resurvey

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of the north boundary of township 4 in range 9; all of this work being to the east of the principal meridian.

W. A. Ducker, D.L.S., Swamp Lands Commissioner for the Manitoba government, under instructions from this department, has surveyed several townships and outlines during the past season. He surveyed the east boundary of township 6, range 9, east of the principal meridian. He also made a part subdivision of townships 5, ranges 9 and 10; township 6, range 10; townships 3, ranges 9, 10, 11 and 12, and also township 2, range 13, all east of the principal meridian. Mr. Ducker reports the past spring as the wettest since the settlement of the country. This season, he is continuing the work which was being done by Mr. Côté last year.

A. F. Martin, D.L.S., Swamp Lands Commissioner for the Manitoba government, has, during the past season, been making various surveys for this department. He has surveyed a colonization road from Teulon northerly for a distance of about sixty miles, and has made resurveys in townships 17, 18, 19 and 20 in range 1; townships 18, 19 and 20, range 2, and township 20, range 10, all west of the principal meridian; and in township 16, range 2, east of the principal meridian. This same work will be continued by Mr. Martin this season.

H. B. Proudfoot, D.L.S., was last season awarded a contract for the subdivision of a number of townships in central Manitoba. He completed this work about the middle of April of this year, having subdivided townships 19, 20, 21 and 22 in range 1, and townships 20, 21, 22 and 23 in range 2, all east of the principal meridian. Part of township 22, range 2, along Icelandic river has been subdivided into river lots with a frontage of twenty chains and a depth of about a mile. This season, he is again working under contract in the same district, having received instructions to subdivide townships 21 and 22 in ranges 1 and 2, west of the principal meridian.

A. Saint-Cyr, D.L.S., is engaged this year in making a block survey in the country between Lakes Manitoba and Winnipeg. He has been instructed to run the seventh base line and the block and township outlines adjoining the principal meridian. Before starting this work, he completed the subdivision into town lots of the portion of the townsite of Gimli, lying between Fourth street south and Second street north.

NORTH-WEST TERRITORIES.

G. B. Abrey, D.L.S., has been awarded a subdivision contract in the district east of Prince Albert, along the proposed extension of the Canadian Northern Railroad. His contract includes townships 43 in ranges 13, 14 and 15, and townships 44 in ranges 13 and 14, west of the second meridian.

David Beatty, D.L.S., has been awarded a survey contract in the country north of Quill lakes. He is to subdivide townships 39 in ranges 20, 21 and 22, and townships 40 in ranges 20 and 21, west of the second meridian.

P. R. A. Bélanger, D.L.S., was last season engaged in running block outlines between Prince Albert and the second meridian. He surveyed the thirteenth base line across ranges 5 to 16 inclusive, the east boundary of townships 45, 46, 47 and 48, range 9, of townships 41, 42 and 43, range 8, of townships 41 and 42, range 7, and of townships 47 and 48, range 5, all west of the second meridian.

This season, Mr. Bélanger is engaged in making resurveys in the Yorkton district. This work is necessary in order that new settlers may be located in townships which are at present vacant. He has already completed townships 19, 20 and 21, range 4, and townships 19 and 20 in range 5, west of the second meridian.

J. A. Belleau, D.L.S., was engaged last season in surveying township outlines east of Prince Albert, in the district through which the Canadian Northern Railway will pass. He surveyed the east boundary of townships 45, 46, 47 and 48 in ranges 14, 15 and 16, and of townships 47 and 48 in ranges 17, 18 and 19, all west of the second meridian.

C. A. Bourget, D.L.S., received instructions in September last year to renew a number of posts marking the corners of blocks in the townsite of Macleod, also to sub-

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divide into town lots a portion of the North-west Mounted Police reserve at Pincher Creek. He afterwards surveyed the south outline of townships 1 in ranges 8 to 14, and the east outlines of townships 1, 2, 3 and 4, ranges 9 and 14, townships 3 and 4, range 15, and township 4, range 8, all west of the fourth meridian.

A. Bourgeault, D.L.S., was working under contract last season in Saskatchewan, north of Quill lakes. He completed the subdivision of townships 35 and 36 in ranges 11, 12 and 13, township 35, range 14, and part of township 34, range 13, all west of the second meridian. This season, he is again working under contract in the same district, having been instructed to subdivide townships 34 and 36 in range 14, townships 34, 35 and 36, range 15, townships 31, 34, 35 and 36, range 16, and townships 35 and 36 in range 17, west of the second meridian. He has already finished township 35, range 15, and a portion of township 36 in range 14.

Edgar Bray, D.L.S., organized a party at Prince Albert about the beginning of May of this year, and proceeded to the country north of the Quill lakes where he had been instructed to survey a number of outlines. He is to survey the meridian outlines adjoining the eleventh base between ranges 16 and 23, west of the second meridian.

J. J. Dalton, D.T.S., has been working during the past season in Assiniboia, in the vicinity of Yorkton and Fort Pelly. He has subdivided townships 31 and 32, range 31, and township 32, range 30, west of the principal meridian, and has made a traverse of the Assiniboine river through townships 32 in ranges 1 and 2, west of the second meridian. He has also made resurveys in townships 24, 25 and 31 in ranges 1 and 2, township 23, range 3, townships 23, 24 and 25, range 4, township 25, range 5, and townships 29 and 30, range 6, all west of the second meridian.

This season, Mr. Dalton is working in the same district. He is to survey the meridian outlines between ranges 14 and 15 across townships 41, 42 and 43 and between ranges 13 and 14 across townships 41 and 42. He is afterwards to subdivide the lands within two or three miles of the line of the Canadian Northern Railway between the western boundary of Manitoba and Carrot river. The country in this district was found to be too wet for work in the early part of the season, so until it become somewhat drier, he is to do some subdivision work in townships 31 in ranges 14 and 15, and townships 26 and 27 in ranges 16 and 17, west of the second meridian.

W. J. Deans, D.L.S., has been awarded a subdivision contract in the Pasquia Hills to the east of Melfort. It includes townships 45 in ranges 13, 14, 15 and 16, and township 46, range 16, west of the second meridian. These townships are along the projected line of the Canadian Northern Railway and their subdivision is most urgently required.

J. C. Desmeules, D.L.S., was employed last season in subdivision work in the Edmonton district, west of the fifth meridian. He finished work about the end of September, having completed the subdivision of parts of townships 53 and 54 in range 1.

Jas. Dickson, D.L.S., was engaged last season in the survey of township outlines in the district between Prince Albert and the second meridian. This is the country through which the Canadian Northern railroad will be built. He completed the survey of the east boundaries of townships 43, 44, 45 and 46 in ranges 4 and 5, townships 43 and 44, ranges 6 and 7, and townships 44, 45 and 46, ranges 3 and 8, all west of the second meridian. This year, he is working under contract in the district south of Prince Albert, and west of the second meridian. He is to subdivide townships 41, 42 and 44, range 24, township 41, range 25, and portions of townships 43 in ranges 25 and 26.

C. C. DuBerger, D.L.S., was engaged last season in running township outlines in the district of Saskatchewan south of the twelfth base line, west of the second meridian. Owing to the heavy rains which flooded the country, and made travelling most difficult, and also owing to his own ill health, Mr. DuBerger did not complete all the work allotted to him. He completed the survey of the east boundary of township 43 in range 14, and a part of the east boundary of township 44 in range 14. This season, he has been awarded a contract for the subdivision of a number of townships to the north-east

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of Edmonton on the north side of the Saskatchewan river. His work includes townships 59 in ranges 14, 15, 16, 17, 18 and 19, and portions of townships 58 in ranges 16, 17, 18 and 19 west of the fourth meridian.

P. T. C. Dumais, D.L.S., has been awarded a contract for the subdivision of a number of townships in the Beaver Hills, west of Yorkton. His work includes townships 27 in ranges 8, 9 and 11, townships 28 in ranges 9, 11 and 12, township 29, range 12, and a portion of township 27 range 12, all west of the second meridian.

C. C. Fairchild, D.L.S., was sent out in 1901 to survey the outlines and subdivide certain townships near Dunvegan on the Peace river in Athabaska district, allotted to 'La Société de Colonisation de la Rivière La Paix.' After some delay, owing to an outbreak of smallpox in his camp, he reached the Peace river about July 15th. He extended the 21st base line across ranges 26 and 25, west of the fifth meridian, opened out the sixth meridian across township 80, surveyed the other outlines of township 80, range 26, and subdivided it. He also extended the meridian between ranges 25 and 26 south across township 79, ran the remaining outlines of township 80, range 25, subdivided part of the township and then made a traverse of the Peace river across the townships. When there still remained a month for work, Mr. Fairchild met with an accident which prevented further progress for the season. In March, 1902, Mr. Fairchild was instructed to continue the work given to him the previous year and in addition to complete the survey of the Hudson's Bay Company's lands at Dunvegan and connect it with the Dominion land surveys. On June 1st, he reported that he hoped to reach the initial point of his survey in two weeks.

L. E. Fontaine, D.L.S., was this season instructed to proceed with the work which was allotted to him a year ago. His instructions were to survey parts of the sixteenth and seventeenth base lines and the intervening block outlines, west of the fourth meridian. He has already completed the north boundary of townships 60 in ranges 1, 2, 3, 4, 5, 6, 7 and 8, and the east outline of townships 61 and 62 in range 9.

Louis Gosselin, D.L.S., was surveying under contract last season in the Beaver Hills, near Edmonton. He subdivided township 49 in range 22, and part of township 50, range 22, west of the fifth meridian.

C. E. Lemoine, D.L.S., is surveying under contract in the district south-east of Prince Albert. He has been instructed to subdivide townships 39 in ranges 17, 18 and 19, and townships 40 in ranges 18 and 19, west of the second meridian.

R. W. Lendrum, D.L.S., was last season working under contract in the Beaver Hills, east of Edmonton. He has subdivided townships 50 in ranges 20 and 21, and part of townships 51 in ranges 20 and 21, west of the fourth meridian. He is again working in this neighbourhood this season, having been awarded a contract for the subdivision of townships 49 and 51, range 22, and townships 48 and 49 in range 23, west of the fourth meridian.

G. J. Lonergan, D.L.S., was working last season in southern Alberta, making scattered surveys to meet the requirements of settlers in that district. He has subdivided portions of townships 5 and 10 in range 1, west of the fifth meridian, of township 1 in ranges 21 and 28, and township 2 in ranges 22 and 30, west of the fourth meridian. He also made a traverse of Milk river in township 2, range 21, and a resurvey of a portion of township 2, range 29, both west of the fourth meridian. This season, he has been instructed to continue his last year's work in southern Alberta. He has already subdivided portions of townships 6, 7 and 8 in range 21, and townships 6 and 7 in range 22, and has run the north and east outlines of townships 5 in ranges 21 and 22, and the east outline of township 5, range 23, all west of the third meridian.

A. McFee, D.L.S., was surveying under contract last season in the country west of Red Deer in northern Alberta. He completed the subdivision of township 38, range 3, townships 39 in ranges 2, 3, 4 and 5, and township 40 in range 5, all west of the fifth meridian. This year, he has again been awarded a contract in the same district. It includes townships 33, 34 and 35 in range 3, and townships 36, 37 and 38 in range 4, west of the fifth meridian.

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Hugh McGrandle, D.L.S., was last year awarded a contract for the subdivision of a number of townships in northern Alberta, south of Pigeon lake. He completed the subdivision of township 45, range 28, and a portion of township 46, range 28, and made a resurvey of the boundaries of township 45, range 28, all west of the fourth meridian, also the subdivision of townships 45 and 46 in range 1, townships 43, 44 and 45 in range 2, and a resurvey of the north boundary of township 44, range 2, and the east boundary of township 46, range 1, west of the fifth meridian. He is again working under contract in the same district this season. He is to subdivide townships 47, 48 and 49 in range 1, and township 49 in range 2, west of the fifth meridian, also township 49, range 28, west of the fourth meridian.

J. J. McKenna, D.L.S., was last year working under contract in Red Deer district, central Alberta, west of the fourth meridian. He completed the subdivision of township 37 in ranges 19 and 20, and township 38 in ranges 20 and 21. He also made a resurvey in townships 40, ranges 21 and 22, in order to determine and correct a reported error in the position of the post marking the north-east corner of section 12, township 40, range 22. This year, he has been awarded a contract in the district south of Prince Albert for the subdivision of townships 40 in ranges 25, 26, 27 and 28, and township 41, range 26, all west of the second meridian.

J. K. McLean, D.L.S., was working until November, last season, in the Edmonton district. He completed the survey of the north outlines of townships 60 in ranges 23, 24, 25, 26 and 27, and township 59, range 25, also the east outlines of townships 59 in ranges 24, 25, 26 and 27, townships 60, ranges 23, 24, 25, 26 and 27, and townships 61 and 62 in range 24, all being west of the fourth meridian. He also surveyed the north outlines of townships 56, ranges 3 and 4, and the east outlines of townships 57, ranges 2 and 3, and a portion of township 56, range 4, west of the fifth meridian. He also made a resurvey of part of the fifth meridian through township 60 and subdivided townships 58, ranges 24, 25 and 26, and a portion of townships 60 in ranges 26 and 27, west of the fourth meridian. This season he is to work in the same district, having been instructed to run a number of meridian outlines north of the fifteenth base, also some near St. Ann settlement, west of Edmonton, and a few lines west of Pigeon lake, all this work being west of the fifth meridian.

Jno. Molloy, D.L.S., was engaged last season on subdivision work in western Alberta, under contract. He completed the survey of townships 40, 41, 42, 43 and 44 in range 3, and township 40 in range 4, west of the fifth meridian. This year, he has been awarded a contract for the subdivision of a number of townships south of Prince Albert. His work includes townships 39 in ranges 23 and 24, and townships 40 in ranges 22, 23 and 24, west of the second meridian.

E. J. Rainboth, D.L.S., was last season working under contract in southern Alberta, south of Medicine Hat, and in the Cypress Hills. He completed the subdivision of townships 6 in ranges 25, 26 and 30, townships 7 in ranges 23, 24, 28 and 30, and township 8, range 22, all west of the third meridian, also townships 5 in ranges 14, 15 and 16, townships 6 in ranges 1, 2, 3, 4 and 5, and townships 7 in ranges 3, 4, 5, 6 and 7, west of the fourth meridian. He also made a renewal survey of the east outline of township 5, range 14, west of the fourth meridian.

This season, Mr. Rainboth has a contract for a number of townships near the international boundary in southern Alberta and Assiniboia. His instructions include townships 1 in ranges 6, 12 and 13, and townships 2 in ranges 6, 7, 8, 9, 10, 11, 12, 13 and 14, west of the fourth meridian.

F. J. Robinson, D.L.S., made a few surveys last season in the vicinity of the Milk river, in southern Alberta. He ran the north outline of section 10 and part of the east outline of section 9 in township 5, range 1, west of the fifth meridian, and also located the corners of the legal subdivisions in the north-west quarter of section 10 in the same township.

G. P. Roy, D.L.S., was last year awarded a subdivision contract in Alberta, west of the fourth meridian. He completed the subdivision of townships 35 and 36 in

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ranges 19 and 20, and township 36, range 21. This year, he is again working under contract in Alberta, west of Red Deer. He is to subdivide townships 41, 42 and 43 in range 4, and township 41, range 5, west of the fifth meridian.

J. B. Saint-Cyr, D.L.S., was last season awarded a subdivision contract in the district north of Edmonton. He completed the survey of townships 59 and 60 in ranges 24, 25 and 26, west of the fourth meridian. This year he is again working under contract in the same district. He is to subdivide townships 54 and 57 in range 1, and townships 53 and 57, range 2, west of the fifth meridian.

A. C. Talbot, D.L.S., was last season sent to the settlements about Lesser Slave lake to make various surveys which were required by the settlers in that neighbourhood. He subdivided the settlement at the north-west end of the lake into lots, more or less irregular in size. His work covered the south part of Lesser Slave lake settlement, Heart river and Salt Prairie settlements, and Big Prairie settlement. He also made a survey of lot 21, group 1, Athabaska district, which is situated at the junction of the Lesser Slave and Moose rivers. In January of this year, he was instructed to proceed with the survey of outlines in the Pasquia Hills district, which had been carried on during the first half of the season by Mr. Belleau. In this neighbourhood he completed the survey of the east outlines of townships 45 in ranges 10, 11 and 13, and township 46, range 13, also the twelfth base across ranges 9, 10 and 11 all west of the second meridian.

C. E. Towle, D.L.S., was working under contract last season on Red Deer river east of Innisfail, in Alberta. He completed the subdivision of townships 32 and 33 in range 24, and townships 33 and 34 in range 23, all west of the fourth meridian.

J. N. Wallace, D.L.S., was last season engaged in the survey of township outlines in the Finlanders' reserve adjoining the fifth meridian. He has completed the east outlines of townships 37, 38, 39 and 40 in ranges 7 and 8, townships 37, 38 and 39 in range 6, townships 35, 36, 37, 38, 41, 42, 55 and 56 in range 5, and townships 34, 35, 55 and 56 in range 4, also the tenth base line across ranges 4, 5, 6 and 7 and the fifteenth base across range 4, all being west of the fifth meridian. West of the fourth meridian he surveyed the east boundary of townships 59 and 60, range 22, and townships 61 and 62 in range 23, also the sixteenth base across ranges 21 and 22. This season he has been instructed to run certain township outlines, west of the fifth meridian, and northwest of Calgary. He is also to make a correction survey of a portion of the eleventh correction line, west of the fourth meridian, near Ponoka. He left for this neighbourhood about the middle of July.

James Warren, D.L.S., has been awarded a contract for the subdivision of a number of townships north of the Quill lakes. His work includes townships 37 in ranges 16, 17 and 18, and townships 38 in ranges 17 and 18, west of the second meridian.

Jos. E. Woods, D.L.S., organized a party at Pincher Creek, Alta., in August of last year and was engaged until midwinter in making required surveys in the Crow's Nest district.

He subdivided portions of township 6 in range 2, and of townships 7 and 8 in ranges 3 and 4. He also surveyed a quarry lot in the north-west quarter of section 36, township 7, range 4; all of this work being west of the fifth meridian.

He afterwards subdivided into town lots a portion of the North-west Mounted Police reserve at Pincher Creek.

BRITISH COLUMBIA.

Jos. E. Ross, D.L.S., was engaged during the last half of the season of 1901 in making surveys in the Kamloops district of the railway belt in British Columbia. He defined the boundary of the railway belt above Golden from the Columbia river to the quarter section post on the south boundary of section 12, township 23, range 20, west of the fifth meridian. In addition he subdivided townships 21, range 14; 23, 24, 25, 26 and 27, range 2, and 22, range 8, all west of the sixth meridian; townships 23, ranges

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18, 19 and 20; and 27, ranges 20 and 21, west of the fifth meridian; also portions of townships 23, ranges 8, 9, 10 and 11, and 22, range 11 all west of the sixth meridian. He also resurveyed the west boundary of lot 474, group 1, Kamloops division and the east and west boundaries of Syuam-Am Indian reserve. The south-east quarter of township 22, range 8, and the north-west quarter of township 23, range 2, both west of the sixth meridian were surveyed and on his return to Kamloops he surveyed a provincial lot near Sicamous. Mr. Ross closed operations for the season on the fifth of November. This season he began early in March, the subdivision of parts of townships 18 and 19, ranges 15 and 16, west of the sixth meridian. He next proceeded with the survey of the Shuswap lake to the limit of the belt. Mr. Ross will also make a number of surveys this season in response to requests from settlers. He reports that the season has been a good one for surveying.

A. W. Johnson, D.L.S., is employed this season on surveys in the New Westminster district, British Columbia. He has been instructed to make the necessary surveys in townships 15, ranges 26 and 27; 3 and 5, range 28; 4, ranges 29 and 30; 5, ranges 25, 26 and 27; 15, range 25; 1 and 4, range 28, and 3 and 4, range 30, all west of the sixth meridian; also township 40, east of the coast meridian. He has completed the work in townships 3, range 28, and 5, range 27, west of the sixth meridian. He has made a traverse of the Pitt river from the north boundary of section 15 to the north boundary of section 36 in township 40, east of the coast meridian. He has also surveyed the land on Slesse creek near the international boundary, in townships 1, ranges 27 and 28, west of the sixth meridian.

W. J. Deans, D.L.S., was engaged during 1901 in the railway belt, British Columbia. He first surveyed sections 31, 32 and 33 in township 12, east of the coast meridian. From there he went to North Bend and after much difficulty, caused by the destruction of the original reference points he succeeded in renewing the Canadian Pacific traverse from North Bend to Lytton. He also fixed the positions of all Indian reserves and lots connected with the traverse. The necessary surveys in townships 11, 12, 13 and 14, ranges 26 and 27, and in township 5, range 26, west of the sixth meridian were made, but owing to the lateness of the season Mr. Deans was unable to go to Slesse creek to subdivide the land near the international boundary. He closed operations on November 5th.

A. O. Wheeler, D.L.S., received instructions early last season to make a survey of the country in the neighbourhood of the Selkirk mountains of British Columbia.

This work was undertaken in order that a description and map might be prepared of this portion of the country which is much visited during the summer months by tourists and mountain climbers.

Mr. Wheeler was in the field continuously from June 9 to October 15, 1901.

He reports that he has made a topographical survey of the portion of the Selkirk mountains adjacent to the line of the Canadian Pacific Railway. The ground has been covered between Beavermouth and Revelstoke, and a connection made with J. J. McArthur's topographical survey down the Columbia valley and Arrow lakes thus forming a continuous survey for some miles on either side of the railway and river and forming a base from which the work can be expanded in any required direction.

BOUNDARY SURVEYS.

A. Saint-Cyr, D.L.S., was instructed last season to continue the survey of the boundary line between the province of British Columbia and the Yukon Territory. He began operations at astronomical station H, on the eastern shore of Lake Bennett and first ran the line to station J, on the west shore of Lake Partridge, a distance of twelve miles. This part of the country is exceedingly mountainous, with many glaciers intervening. There is some good timber mostly spruce, pine and balsam; a saw-mill is in operation at Millhaven. The second course run was from Lake Partridge to Primrose river about thirteen miles and a quarter. This portion is even more rocky and

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dangerous to work in than the first. Most of the timber has been overrun by fire. From Primrose river the line was continued to the Takhini river, about eight miles. Heavy snow storms were encountered, while running this portion of the line. One hundred and ten photographs were taken of the country traversed and were used to show the topography of the country.

YUKON TERRITORY.

The returns of survey of 116 lots in the Yukon Territory have been received and confirmed during the year; a list of the lots is given in appendix.

OFFICE WORK.

The quarters formerly occupied by this branch over the Bank of Ottawa were vacated in June and July, 1901; the new quarters are at the corner of Metcalfe and Slater streets. The furniture and fittings for the new offices were not received until May, 1902; during the interval, the office work, which again shows a large increase mostly due to the greater number of survey parties sent out, fell into arrears.

The correspondence consisted of:—

Letters received.. . . .	4,149
Letters sent.. . . .	4,451
Number of accounts.. . . .	561
Amount.. . . .	\$333,486.49
Cheques forwarded.. . . .	1,481

The following is a synopsis of the work of the draughting office:—

Plans and field notes of subdivision surveys examined.. . . .	120
Plans and field notes of outline surveys examined.. . . .	54
Plans and field notes of mineral claims examined.. . . .	69
Plans and field notes of correction and other miscellaneous surveys examined.. . . .	100
Township plans complete for printing.. . . .	225
Proofs of plans examined.. . . .	255
Declarations of settlers received.. . . .	147
Miscellaneous plans, tracings, &c., made.. . . .	1,437
Progress sketches received.. . . .	406

The maps of groups of lots in the Yukon Territory commenced two years ago for office purposes have been extended and the surveyed lots in each group added to the maps as the surveys were approved.

The sectional maps on a scale of two miles to an inch have been kept up to date as new surveys were completed and reissues of these are being published as fast as possible.

The following new sheets have been published, Donald, Milk river, Humboldt and Pasquia sheet is now in course of being printed.

Another map showing the 60th parallel of latitude from Lake Bennett to Takhini river is being published on a scale of 100 chains to an inch to accompany the report of Mr. Arthur Saint-Cyr on the boundary line between British Columbia and the Yukon Territory.

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About 700 files of papers were received and dealt with referring to a great variety of subjects, areas and descriptions of parcels of land, applications for new surveys and for remarking of old surveys, questions as to the marking of corners, &c.

PHOTOGRAPHIC OFFICE.

Some progress was made in fitting up the new quarters of the photographer, but they will not be quite ready until the end of 1902. The dark rooms were completed in May, 1902, and the copying camera set up a little later. The copying board, four and a half by six feet, is lighted by four arc lamps of 5,000 candles each: that is a great improvement over day light formerly used. The copying camera is waiting for a condenser which is now being made: it is expected to be ready for work by the end of 1902.

LITHOGRAPHIC OFFICE.

The quarters formerly occupied were vacated in June, 1901, and the new quarters were not fitted up until May, 1902. During the interval, the work was carried on at a considerable disadvantage and fell much behind.

A power press for stones $27 \times 36\frac{1}{2}$ was procured and set up: it is operated by an electric motor. A further stock of stones was ordered and has been received; they are now being ground flat and put in shape for use. With these improvements, it is hoped that the arrears of work may be overtaken. A schedule of work done during the year is appended.

BOARD OF EXAMINERS FOR DOMINION LAND SURVEYORS.

The Board of Examiners held its regular meeting, commencing on February 10, 1902, and also special meetings on March 10 and May 9. The special meetings were held to pass upon the papers of candidates who wrote at Toronto, Kingston, Regina and Calgary.

The following candidates passed examinations before the board:—

Preliminary Examination.

P. A. Carson, Ottawa, Ont.	W. F. Ratz, Elmira, Ont.
W. M. Tobey, Ottawa, Ont.	J. M. Empey, Thamesford, Ont.
C. Engler, Ottawa, Ont.	A. L. MacLennan, Toronto, Ont.
H. K. Moberly, Innisfail, Alta.	W. Christie, Chesley, Ont.
J. H. Alexander, Brampton, Ont.	I. J. Steele, Toronto, Ont.
J. E. Davison, Toronto, Ont.	R. H. Knight, Bruce Mines, Ont.
J. A. Johnston, Pefferlaw, Ont.	G. A. Grover, Kingston, Ont.
C. Harvey, Indian Head, Assa.	D. S. Noble, Clarkson, Ont.
N. J. Ogilvie, Aylmer, Que.	A. J. McNab, Douglas, Ont.
J. G. McIntosh, Regina, Assa.	J. D. McLennan, Port Hope, Ont.
M. P. Bridgland, Township of York, Ont.	S. S. McDiarmid, Woodstock, Ont.
T. S. Nash, Morrisburg, Ont.	J. N. Stanley, Port Colborne, Ont.
H. H. Moore, Township of York, Ont.	E. Sutherland, Belleville, Ont.

Final Examination for Dominion Land Surveyor.

T. Shanks, Ottawa, Ont.	F. A. Wilkin, Rossland, B.C.
G. H. Watt, Ottawa, Ont.	R. J. Gordon, Stirling, Alta.
J. D. Craig, Ottawa, Ont.	A. W. Johnson, Kamloops, B.C.
P. W. Currie, Ottawa, Ont.	A. E. Farncomb, Regina, Assa.
E. H. Phillips, Minden, Ont.	

Twenty-three of the above candidates passed in the limited preliminary examination arranged for those having university or college degrees in science.

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Eight commissions were issued during the year to those candidates who had been found duly qualified to perform the duties of a Dominion Land Surveyor.

Every Dominion land surveyor is required by clause 115 of the Dominion Lands Act to enter into a bond with two sureties, each in the sum of one thousand dollars for the faithful performance of his office. Since June 30, 1901, ten bonds were received by the secretary of the board.

Under clause 125 of the Act, every Dominion land surveyor must be provided with a standard of length tested and stamped as correct by the Department of Inland Revenue. Six of these standards were issued during the twelve months. A list is appended of the surveyors who have been supplied with standard measures, and who are, therefore, legally qualified to survey Dominion lands.

The secretary of the Land Surveyors' Licensing Board of Australasia transmitted a copy of the rules governing the examination and licensing of surveyors, and a set of examination papers: and in return, he was given some information regarding surveys as undertaken by this department, and copies were sent him of the Manual of survey, the rules and programme of subjects of examination of this board, &c.

The correspondence of the board amounted to:—

Letters received.	342
Letters sent.	404

APPENDICES.

The following documents are appended:—

Schedule of Dominion land surveyors employed.

List of lots in the Yukon Territory, &c.

Statement of work performed in the survey records office.

Schedule of work executed in the photographic office.

Schedule of work executed in the lithographic office.

List of Dominion land surveyors who have been supplied with standard measures.

Report of the Chief Inspector of Surveys.

Reports of Messrs. C. F. Aylsworth, J. A. Côté, R. Bourne, James Dickson, C. C. DuBerger, G. J. Lonergan, John J. Dalton, J. A. Belleau, A. C. Talbot, P. R. A. Bélanger, J. K. McLean, J. N. Wallace, J. C. Desmeules, C. C. Fairchild, Jos. E. Ross, W. J. Deans, Arthur Saint-Cyr and A. O. Wheeler, Dominion land surveyors, on surveys made in 1901.

Examination papers of the Board of Examiners for Dominion land surveyors.

I have the honour to be, sir,
Your obedient servant,

E. DEVILLE,
Surveyor General.

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APPENDIX No. 1 TO THE REPORT OF THE SURVEYOR GENERAL

SCHEDULE of Dominion Land Surveyors employed, and work executed by them, from June 30, 1901, to June 30, 1902.

Surveyor.	Address.	Description of Work.
Abrey, G. B.	Toronto Junction, Ont.	Contract No. 19 of 1902, in Prince Albert district. No return.
Aylsworth, C. F.	Madoc, Ont.	Subdivision of the south half of the north-east quarter of section 11 in township 13, range 6, being the village of Tyndall, east of the principal meridian. Resurvey of township 12, range 7; township 11, range 8; part of township 13, range 7, and west boundary of township 11, range 7; also certain lines in township 13, range 6, for the Tyndall survey; all east of the principal meridian. Resurvey of part of township 16, ranges 1 and 2, township 15, range 3 and township 17, range 2; all west of the principal meridian.
Beatty, D.	Parry Sound, Ont.	Contract No. 7 of 1902, north of Quill lakes. No returns.
Belanger, P. R. A.	Ottawa, Ont.	Survey of the north boundary of township 48, ranges 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 and the west portion of the north boundary of township 48, range 4. The east boundary of townships 45, 46, 47, 48, range 9; of townships 41, 42 and 43, range 8; of townships 41 and 42, range 7, and of townships 47 and 48, range 5; all west of the second meridian. Resurvey of townships 19, 20 and 21, range 4 and township 19, range 5; west of the second meridian.
Belleau, J. A.	Ottawa, Ont.	Survey of the east boundary of townships 45, 46, 47 and 48, ranges 14, 15 and 16; also of townships 47 and 48, ranges 17, 18 and 19; all west of the second meridian.
Bourgeault, A.	St. Jean, Port Joli, Q.	Contract No. 2 in 1901 and contract No. 3 in 1902. Survey of the north and south boundaries of township 35, ranges 11, 12, 13 and 14; west of the second meridian. Subdivision of townships 35 and 36, ranges 11, 12 and 13; township 35 and east half of township 36, range 14; also north part of township 34, range 13 and township 35, range 15; all west of the second meridian.
Bourget, C. A.	St. Adelaide de Pabos, Q.	Survey of the south boundary of township 1, ranges 8, 9, 10, 11, 12, 13 and 14, also the east boundary of townships 1, 2, 3 and 4, ranges 9 and 14, townships 3 and 4, range 15, and township 4, range 8; all west of the fourth meridian. Subdivision into town lots of part of the North-west Mounted Police Reserve at Pincher Creek, being part of the south-west quarter of section 23, township 6, range 30; west of the fourth meridian.
Bourne, R.	Winnipeg, Man.	Survey of the principal meridian along townships 21, 22, 23 and 24; also the east boundary of townships 20, 23, 24, range 1, and north boundary of townships 22 and 24, range 1. Subdivision of township 19, range 2, east of the principal meridian. Resurvey of the north boundary of township 20, ranges 3 and 4; east of the principal meridian and also the principal meridian along township 20 and part of township 19.
Bray, E.	Oakville, Ont.	Survey of outlines in Prince Albert District in 1902. No returns.
Coté, J. A.	Quebec, Que.	Survey of the north boundary of townships 1 and 2, ranges 9 and 10; the east boundary of townships 1 and 2, range 9 and townships 3 and 4, range 12; all east of the principal meridian. Part subdivision of township 4, ranges 9, 10 and 11; township 3, ranges 10 and 11; and township 1, ranges 8 and 13; all east of the principal meridian. Also survey of the east and north boundaries of township 2, range 8; east of the principal meridian. Resurvey of the north boundary of township 4, range 9, east of the principal meridian.
Dalton, J. J.	Milton, West, Ont.	Subdivision of townships 31 and 32, range 31; also township 32, range 30; all west of the principal meridian. Resurvey of part of townships 24, 25 and 31, ranges 1 and 2; township 23, range 3; townships 23, 24 and 25, range 4; township 25, range 5, and townships 29 and 30, range 6; all west of the second meridian. Traverse of the Assiniboine river, township 32, ranges 1 and 2, west of the second meridian.

2-3 EDWARD VII., A. 1903

APPENDIX No. 1 TO THE REPORT OF THE SURVEYOR GENERAL

SCHEDULE of Dominion Land Surveyors employed, and work executed by them, from June 30, 1901, to June 30, 1902—*Continued.*

Surveyor.	Address.	Description of Work.
Deans, W. J.	Brandon, Man.	Part subdivision of townships 13 and 14, range 27, and townships 11 and 12, range 26; all west of the sixth meridian. Resurvey of township 12, east of the coast meridian, and township 13, range 26, west of the sixth meridian. Renewal of the C. P. Ry. traverse from station 546 to station 712. Also contract No. 20 of 1902, in Prince Albert District.
Desmeules, J. C.	Murray Bay, Que.	Part subdivision of townships 53 and 54, range 1, west of the fifth meridian.
Dickson, Jas.	Fenelon Falls, Ont.	Survey of the east boundary of townships 43, 44, 45 and 46, ranges 4 and 5; townships 43 and 44, ranges 6 and 7; townships 44, 45 and 46, ranges 3 and 8; all west of the second meridian. Also contract No. 10 of 1902, in Prince Albert District.
Duburger, C. C.	Waterloo, Que.	Survey of the east boundary of township 43, range 14, and the south portion of the east boundary of township 44, range 14; all west of the second meridian. Also contract No. 11 of 1902, in Northern Alberta.
Ducker, W. A.	Winnipeg, Man.	Survey of the east boundary of township 6, range 9, east of the principal meridian. Part subdivision of township 5, ranges 9 and 10; township 6, range 10; township 3, ranges 9, 10, 11 and 12; also township 2, range 13; all east of the principal meridian.
Dumas, P. T. C.	Dawson, Y. T.	Contract No. 1 of 1902, near Yorkton, Assa.
Fairchild, C. C.	Brantford, Ont.	Part subdivision of township 80, ranges 25 and 26, and township 79, range 25; all west of the fifth meridian.
Fontaine, L. E.	Lévis, Que.	Survey of the north boundary of township 60, ranges 1, 2, 3, 4, 5, 6, 7 and 8. The east boundary of townships 61 and 62, range 9; all west of the fourth meridian.
Gosselin, L.	Quebec, Que.	Subdivision under contract No. 6 of 1901, of township 49, range 22, and part subdivision of township 50, range 22, west of the fourth meridian.
Johnson, Alfred W.	Kamloops, B. C.	Part subdivision of township 3, range 28, and township 5, range 27, west of the sixth meridian; also township 40, east of the coast meridian.
Lemoine, E.	Quebec, Que.	Contract No. 6 of 1902, in Prince Albert District. No returns.
Lendrum, R. W.	Strathcona, Alta.	Contract No. 5 of 1901, and contract No. 13 of 1902, in Northern Alberta. Subdivision of township 50, ranges 20 and 21. Part subdivision of township 51, ranges 20 and 21; all west of the fourth meridian.
Lomergan, G. J.	Buckingham, Que.	Part subdivision of townships 7 and 8, range 21, west of the third meridian; townships 5 and 10, range 1, west of the fifth meridian; township 1, ranges 21 and 28, township 2, ranges 22 and 30, all west of the fourth meridian. Traverse of Milk river, township 2, range 21, west of the fourth meridian. Resurvey of certain lines in township 2, range 29, west of the fourth meridian.
Martin, A. F.	Winnipeg, Man.	Survey of colonization road from the north boundary of sec. 29, township 16, range 2, east of the principal meridian to the east boundary of sec. 2, township 18, range 1; west of the principal meridian. Resurvey of townships 17, 18, 19 and 20, range 1, townships 19 and 20, range 2, township 20, range 10, part of township 18, range 2, all west of the principal meridian; also part of township 16, range 2, east of the principal meridian.
Molloy, J.	Rosser, Man.	Sub-division under contract No. 9 of 1901 of townships 40, 41, 42, 43 and 44, range 3, and township 40, range 4, all west of the fifth meridian. Resurvey of the north boundary of township 40, ranges 3 and 4, west of the fifth meridian. Also contract No. 8 of 1902 in Prince Albert district. No returns.
McFee, A.	Innisfail, Alta.	Contract No. 10 of 1901 and contract No. 16 of 1902 in northern Alberta. Subdivision of township 39, ranges 2, 3, 4 and 5, township 38, range 3, township 40, range 5, and partial subdivision of township 38, range 2, all west of the fifth meridian. Resurvey of the east boundary of township 38, range 3, west of the fifth meridian.

SESSIONAL PAPER No. 25

APPENDIX No. 1 TO THE REPORT OF THE SURVEYOR GENERAL

SCHEDULE of Dominion Land Surveyors employed, and work executed by them, from June 30, 1901, to June 30, 1902—*Continued.*

Surveyor	Address.	Description of Work.
McGrandle, H.	Huntsville, Ont.	Contract No. 8 of 1901 and contract No. 14 of 1902 in northern Alberta. Subdivision of township 45, range 28, west of the fourth meridian; townships 45 and 46, range 1, townships 43, 44 and 45, range 2, all west of the fifth meridian; also part subdivision of township 46, range 28, west of the fourth meridian. Resurvey of the boundaries of township 45, range 28, west of the fourth meridian; also the north boundary of township 44, range 2, and the east boundary of township 46, range 1, all west of the fifth meridian.
McKenna, J. J.	Dublin, Ont.	Subdivision under contract No. 11 of 1901, of township 37, ranges 19 and 20; township 38, ranges 20 and 21; all west of the fourth meridian. Resurvey of part of township 40, ranges 21 and 22, west of the fourth meridian. Also contract No. 9 of 1902 in Prince Albert district.
McLean, J. K.	Elora, Ont.	Survey of the north boundary of township 60, ranges 23, 24, 25, 26 and 27; township 59, range 25; all west of the fourth meridian; also township 56, ranges 3 and 4 west of the fifth meridian. The east boundary of township 59, ranges 24, 25, 26 and 27, township 60, ranges 23, 24, 25, 26 and 27, townships 61 and 62, range 24 west of the fourth meridian and part of east boundary of township 56, range 4, and township 57, ranges 2 and 3, west of the fifth meridian. Resurvey of part of the fifth meridian, township 60. Subdivision of township 58, ranges 24, 25 and 26, and part subdivision of township 60, ranges 25 and 27 west of the fourth meridian.
Proudfoot, H. B.	Toronto, Ont.	Contract No. 1 of 1901 and contract No. 2 of 1902. Subdivision of townships 19, 20, 21 and 22, range 1, townships 20, 21, 22 and 23, range 2, east of the principal meridian. Traverse of the Icelandic river and road, township 22, range 2, east of the principal meridian.
Rainboth, E. J.	Aylmer, Que.	Contract No. 14 of 1901 and contract No. 21 of 1902 in southern Alberta. Subdivision of township 5, ranges 14, 15 and 16; township 6, ranges 1, 2, 3, 4 and 5; township 7, ranges 3, 4, 5 and 6; township 8, ranges 6 and 7; all west of the fourth meridian; also township 6, ranges 25, 26 and 30; township 7, ranges 23, 24, 28 and 30, township 8, range 22, all west of the third meridian.
Robinson, F. J.	Macleod, Alta.	Survey of the north boundary of sec. 10, township 5, range 1, and the north half of the east boundary of sec. 9, township 5, range 1 and legal subdivision of the north west quarter of sec. 10, township 5, range 1, all west of the fifth meridian.
Ross, J. E.	New Westminster, B.C.	Subdivision of township 21, range 14, townships 23, 24, 25, 26 and 27, range 2; township 22, range 8; all west of the sixth meridian. Also, township 23, ranges 18, 19 and 20; township 27, ranges 21 and 22, west of the fifth meridian. Part subdivision of townships 18 and 19, ranges 15 and 16; township 23, ranges 8, 9, 10 and 11; township 22, range 11; all west of the sixth meridian. Resurvey of the west boundary of lot 474, group 1, Kamloops division; south-east quarter of township 22, range 8 and north-west quarter of township 23, range 2; also, east and west boundaries of Synam-Am Indian reserve, township 24, range 13, all west of the sixth meridian.
Roy, Geo. P.	Quebec, Que.	Subdivision under contract No. 12 of 1901, of townships 35 and 36, ranges 19 and 20; also, township 36, range 21; all west of the fourth meridian. Also, contract No. 15 of 1902 in Northern Alberta. No returns.
Saint-Cyr, J. B.	St. Anne de la Pêrade, Que.	Subdivision under contract No. 4 of 1901 of townships 59 and 60, ranges 24, 25 and 26, west of the fourth meridian. Also, contract No. 12 of 1902 in the same locality. No returns.

2-3 EDWARD VII., A. 1903

APPENDIX No. 1 TO THE REPORT OF THE SURVEYOR GENERAL.

SCHEDULE of Dominion Land Surveyors employed, and work done by them, from June 30, 1901, to June 30, 1902—*Concluded*.

Surveyor.	Address.	Description of Work.
Saint-Cyr, A.	Ottawa, Ont.	Survey of the boundary between British Columbia and Yukon Territory from Lake Bennett to Takhini river. Survey of part of town plot of Gimli, Manitoba.
Sirois, E. ....	.....	Assistant to J. C. Desmenes.
Talbot, A. C.	Ottawa, Ont.	Survey of the south part of Lesser Slave Lake settlement, N. W. T., survey of Heart River and Salt Prairie and Big Prairie settlements, Lesser Slave Lake, N. W. T.; survey of lot 21, group 1, Athabaska district. Survey of the east boundary of township 45, ranges 10, 11 and 13; and township 46, range 13. North boundary of township 44, ranges 9, 10 and 11, all west of the second meridian.
Towle, C. E.	Waterloo, Que.	Subdivision under contract No. 13 of 1901, of townships 32 and 33, range 24, and townships 33 and 34, range 23; all west of the fourth meridian.
Vincent, F. ....	.....	Assistant to J. K. McLean.
Wallace, J. N.	Calgary, Alta.	Survey of the east boundary of townships 37, 38, 39 and 40, ranges 7 and 8; townships 37, 38 and 39, range 6; townships 35, 36, 37, 38, 41, 42, 55 and 56, range 5; and townships 34, 35, 55 and 56, range 4, all west of the fifth meridian. Also, east boundary of townships 59 and 60, range 22; townships 61 and 62, range 23; all west of the fourth meridian. Also north boundary of township 36, ranges 4, 5, 6 and 7; township 56, range 4, all west of the fifth meridian, and township 60, ranges 21 and 22, west of the fourth meridian.
Warren, Jas.	Walkerton, Ont.	Contract No. 5 of 1902 north of Quill lakes. No returns.
Wheeler, A. O.	Calgary, Alta.	Topographical survey of the Selkirk mountains.
Woods, J. E.	Frank, Alta.	Part subdivision of township 6, range 2; townships 7 and 8, ranges 3 and 4. All west of the fifth meridian. Survey of the N. W. M. P. reserve at Pincher Creek. Survey of Quarry lot, north-west quarter of section 36, township 7, range 4, west of the fifth meridian.

SESSIONAL PAPER No. 25

APPENDIX NO. 2 TO THE REPORT OF THE SURVEYOR GENERAL

LIST of lots in the Yukon Territory of which surveys have been confirmed during the year ending June 30, 1902.

Group No. 1, Yukon Territory.

Lot No.	Area in Acres.	Surveyor.	Year of Survey.	Date of Approval.	Claimant.	Remarks.
24	38 30	R. Rinfret.....	1901	Jan. 13, '02.	T. C. Healy.....	
28	18 00	".....	1901	Feb. 10, '02.	N. A. T. & T. Co.....	
29	7 20	".....	1901	".....	".....	
30	40 00	".....	1902	June 10, '02.	W. Thibaudau.....	

Group No. 2, Yukon Territory.

9		C. S. W. Barwell..	1899	July 30, '01		Part subdivision of lot.
9		C. W. MacPherson	1901	Dec. 23, '01		Part subdivision of lot.
35	67 57	A. J. McPherson..	1902	Mar. 4, '02	Moosehide Indian reserve	Subdivision of block A.
56		C. S. W. Barwell..	1900	May 2, '02	R. M. Lindsay.....	
58	50 81	".....	1900	June 10, '02.	Dominion & Hunker Jn.	
69	33 33	".....	1900	" 10, '02.	Dominion & Hunker Central.....	
70	51 65	".....	1900	" 10, '02.	Great Dome.....	
71	51 19	".....	1900	" 10, '02.	North Dome.....	
72	51 39	".....	1900	" 10, '02.	Dome Extended.....	
73	51 65	".....	1900	" 10, '02.	St. Paul.....	
74	51 65	".....	1900	" 10, '02.	South Dome.....	
75	51 65	".....	1900	" 10, '02.	Skookum.....	
76	44 36	T. D. Green.....	1900	Sept. 25, '01	Peter Farrell.....	
81	36 77 1/2	A. Fawcett.....	1901	July 2, '01	W. J. Nolan.....	
92	20 00	R. Rinfret.....	1901	" 30, '01	John A. Morgan.....	
93	10 00	".....	1901	" 30, '01	".....	
94	80 00	".....	1901	" 30, '01	Messrs. Perry & Vandall	
95	47 52	".....	1901	Jan. 27, '02	C. A. Chisholm.....	
96	5 53 1/2	Adam Fawcett..	1901	July 24, '01	Wm. H. Daily.....	
97	4 80	R. Rinfret.....	1901	Sept. 25, '01	Andrew Clark.....	
98	38 70	".....	1901	" 25, '01	Frank L. Thomas.....	
101	25 00	J. L. Côté.....	1901	Oct. 14, '01	J. P. Whitehouse.....	
102	10 00	P. T. C. Dumais..	1901	" 14, '01	M. Anstett.....	
103	41 76	G. Edward.....	1901	Sept. 5, '01	B. Magoffin.....	
104	41 72	".....	1901	" 5, '01	P. Bernstein & B. Magoffin	
105	47 18	".....	1901	" 5, '01	B. Magoffin.....	
106	42 02	".....	1901	" 5, '01	B. Magoffin & Clark.....	
117	14 93	R. Rinfret.....	1901	" 5, '01	Messrs. Perry & Vandall	
118	80 00	".....	1901	" 25, '01	Frank Vandall.....	
119	51 65	R. W. Cantley..	1901	Feb. 11, '02	Wilson Foster.....	
120	20 00	G. White-Fraser	1901	Nov. 4, '01	Fritz Geismann.....	
121	5 00	".....	1901	" 4, '01	Fritz-Geismann.....	
124	35 80	Adam Fawcett..	1901	Oct. 15, '01	H. E. Bowcher.....	
125	34 29	".....	1901	" 15, '01	C. G. Fannie.....	
126	51 65	R. J. Jephson.....	1902	June 20, '02	Margaret J. Mitchell..	
127	40 00	G. White-Fraser	1901	Dec. 23, '01	Owen W. Hobbs, transferred to J. A. Chute.	
128	40 00	G. White-Fraser..	1901	Dec. 23, '01	Owen W. Hobbs.....	Transf'd to J. A. Chute.
129	40 00	".....	1901	" 23, '01	Owen W. Hobbs.....	" "
130	20 00	R. Rinfret.....	1901	Oct. 25, '01	Messrs. Vandall & Perry	
132	51 08	Adam Fawcett..	1901	Nov. 4, '01	John Cameron.....	
133	51 65	R. Rinfret.....	1901	Dec. 23, '01	Lars Netland.....	
134	80 00	R. W. Cantley..	1901	Oct. 25, '01	J. A. Rouse & Co.....	
135	41 75	".....	1901	" 25, '01	".....	
136	80 00	".....	1901	" 25, '01	".....	
137	20 00	A. Fawcett.....	1901	Feb. 11, '02	John Horne.....	
138	28 00	R. Rinfret.....	1901	" 26, '02	Isaac Lusk.....	
140	76 00	".....	1901	" 26, '02	".....	
141	10 45	J. L. Côté.....	1901	Mar. 4, '02	Helene Garbrath.....	
142	42 00	".....	1902	" 24, '02	Andrew Young.....	
143	50 19	".....	1902	June 10, '02	Wilson & Foster.....	
144	4 45	".....	1902	" 10, '02	Wm. Preido.....	
145	5 89	".....	1902	" 10, '02	".....	

2-3 EDWARD VII., A. 1903

APPENDIX NO. 2 TO THE REPORT OF THE SURVEYOR GENERAL—*Con.*LIST of lots in the Yukon Territory, &c.—*Con.**Group No. 2, Yukon Territory—Con.*

Lot No.	Area in Acres.	Surveyor.	Year of Survey.	Date of Approval.	Claimant	Remarks.
146	51.65	Geo. Edwards.	1901	Jan. 7, '02.	W. Williams.	
147	51.65	"	1901	" 7, '02.	Ida P. Ritter.	
148	51.65	"	1901	" 7, '02.	W. E. Haddock.	
150	40.59	"	1901	" 7, '02.	J. Haddock.	
151	40.59	"	1901	" 7, '02.	F. A. Cleveland.	
152	51.65	"	1901	" 7, '02.	H. D. Murray & A. B. Swan.	
153	41.17	"	1901	" 7, '02.	C. N. Williams.	
154	42.85	"	1901	" 7, '02.	D. Matheson.	
155	51.53	"	1901	" 7, '02.	A. M. Matheson.	
156	10.00	R. Rinfret.	1901	" 7, '02.	L. J. McCarty.	
157	20.00	"	1901	" 7, '02.	Hugh McCrorie.	
158	37.37	"	1901	Dec. 23, '01.	R. E. Miles.	
183	44.39	"	1901	Jan. 7, '02.	Wright, Gray & Alexander.	
184	82.26	"	1901	" 7, '02.	Wright, Gray & Alexander.	
186	160.00	"	1902	June 19, '02.	A. R. Thomas & B. C. Sprague.	
187	81.91	J. W. Tyrrell.	1901	Jan. 27, '02.	Messrs. Chute & Wills.	
190	160.00	R. Rinfret.	1902	June 19, '02.	A. R. Thomas & B. C. Sprague.	
192	125.00	"	1902	" 19, '02.	B. C. Sprague.	

Group No. 3, Yukon Territory.

10	80.00	Geo. Edwards.	1901	July 30, '01.	James Hagen.	
11	80.00	"	1901	" 30, '01.	"	
12	80.00	"	1901	" 30, '01.	"	
13	77.82	"	1901	" 30, '01.	"	
14	80.00	"	1901	Jan. 7, '02.	Daniel Monroe.	
15	80.00	"	1901	" 7, '02.	"	
16	80.00	"	1901	" 7, '02.	"	
22	21.21	R. W. Cautley.	1901	July 24, '01.	Messrs. Begg & Edwards.	Rights transferred to W. R. Hill.
23	18.30	Adam Fawcett.	1901	" 24, '01.	F. Gauke.	

Group No. 4, Yukon Territory.

2		C. W. MacPherson.	1900	July 2, '01.		Subdivision of Blocks A, B, H, I, O, P, V, W.
5	10.00	"	1900	" 2, '01.	C. D. Co.	
6	159.98	"	1900	" 2, '01.		Indian Reserve.

SESSIONAL PAPER No. 25

APPENDIX No. 2 TO THE REPORT OF THE SURVEYOR GENERAL—*Con.*List of lots in the Yukon Territory, &c.—*Con.**Group No. 5, Yukon Territory.*

Lot No.	Area in Acres.	Surveyor.	Year of Survey.	Date of Approval.	Claimant.	Remarks.
22	40.00	H. G. Dickson....	1901	Sept. 5, '01..	Whitney & Young.....	
28	159.38	C. W. MacPherson	1900	July 24, '01..	Dominion Government..	
29	40.00	"	1900	" 24, '01..	N.W. M. P.	
30	160.00	H. G. Dickson....	1901	" 24, '01..	Jas. E. Beatty	
31	160.00	"	1901	" 24, '01..	"	
32	160.30	"	1901	" 24, '01..	E. Johnston	
33	160.00	"	1901	" 24, '01..	Robt. Lowe	
34	160.00	"	1901	" 24, '01..	Geo. Armstrong.....	
35	160.00	"	1901	" 24, '01..	W. Armstrong.....	
36	160.00	"	1901	" 24, '01..	"	
37	160.00	"	1901	" 24, '01..	T. C. Norris.....	
38	169.00	"	1901	" 24, '01..	"	
44	160.00	"	1901	Feb. 10, '02..	Wesley Keith	
45	160.02	"	1901	" 10, '02..	"	
46	159.96	"	1901	" 10, '02..	David P. Earley.....	
47	159.92	"	1901	" 10, '02..	"	

Group No. 6, Yukon Territory.

9	331.21	R. J. Jephson	1898	Jan. 27, '02..	Col. Steele.....	For N.W. M. P.
10	162.08	"	1898	" 27, '02..	"	"

Group No. 8, Yukon Territory.

1	160.10	C. W. MacPherson	1900	Sept. 27, '01..	.....	Indian Reserve.
2	160.17	"	1901	" 27, '01..	.....	"
8	2.84	"	1900	" 6, '01..	James Davis	
12	2.00	P. T. C. Dumais ..	1901	June 10, '02..	E. B. Dycer	

Group No. 10, Yukon Territory.

1	40.00	C. W. MacPherson	1900	July 2, '01..	.....	Police Reserve.
2	40.05	"	1900	" 2, '01..	.....	"
3	40.00	"	1900	" 2, '01..	.....	"
4	159.76	"	1900	" 2, '01..	Miller	
5	160.00	P. T. C. Dumais ..	1901	June 10, '02..	E. C. Miller.....	
6	160.00	"	1901	" 10, '02..	"	

Group No. 11, Yukon Territory.

1	40.017	C. W. MacPherson	1900	July 2, '01..	N.W. M. P.	
2	25.50	"	1900	" 2, '01..	"	

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APPENDIX No. 3 TO THE REPORT OF THE SURVEYOR GENERAL.

STATEMENT of work performed in the Survey Records Office for the twelve months ending June 30, 1902.

Files received and dealt with.	1,444
Letters drafted.	3,724
Memorandums, draft memos to council, &c.	240
Plans, tracings, &c., copied or compiled.	296
Statutory declarations copied and mailed.	260
Plans sent to agents, registrars, &c.	2,471
Pages of field notes copied.	528
Prints of plans received and stored.	10,748
Original plans received and recorded.	696
Original field books received and recorded.	202
Letters written to agents, registrars, &c.	481
Registered parcels, &c., mailed.	531

FRANK CLAYTON,

Surveyor and Draughtsman in charge of office.

APPENDIX No. 4 TO THE REPORT OF THE SURVEYOR GENERAL.

SCHEDULE of work executed in the Photographic Office for the twelve months ending June 30, 1902.

For the Department of the Interior—

Dry plates developed.	265
Wet plates developed.	102
Transfers.	63
Bromide prints.	564
Black and white print.	507
Silver prints.	2,692

For the Department of the Geological Survey—

Dry plates developed.	45
Wet plates developed.	4
Black and white prints.	45
Silver.	627

SESSIONAL PAPER No. 25

APPENDIX No. 5 TO THE REPORT OF THE SURVEYOR GENERAL.

SCHEDULE of Work executed in the Lithographic Office for the twelve months ending
June 30, 1902.

Month.	MAPS.		TOWNSHIP PLANS.		FORMS, &c.	
	Number.	Copies.	Number.	Copies.	Number.	Copies.
1901.						
July			4	213		
August			6	319	1	200
September	1	100	10	510		
October			14	744	2	260
November			6	318	12	424
December			11	584		
1902.						
January			19	1,161	3	705
February	1	400	19	1,426	6	1,600
March	1	400	31	2,325	2	125
April	26	1,871	13	975	1	100
May			30	2,258	2	1,000
June	6	2,062	13	681	4	350
Total	35	4,833	176	11,514	23	4,764

RECAPITULATION.

Number of maps	35	Number of copies	4,833
" township plans	176	"	11,514
" forms, &c	23	"	4,764
Grand total	234	Grand total	21,111

2-3 EDWARD VII., A. 1903

APPENDIX No. 6 TO THE REPORT OF THE SURVEYOR GENERAL

List of Dominion Land Surveyors who have been supplied with Standard Measures.

Name.	Address.	Date of Appointment	Remarks.
Abrey, G. B.	Toronto Jet., Ont.	April 14, '72	
Austin, G. F.	Dewdney, Alta.	April 14, '72	
Aylsworth, C. F.	Madoc, Ont.	May 17, '86	
Barwell, C. S. W.	Dawson, Yukon Territory	Aug. 21, '94	
Bayne, G. A.	Winnipeg, Man.	April 14, '72	
Beatty, D.	Parry Sound, Ont.	April 14, '72	
Belanger, P. R. A.	Ottawa, Ont.	May 17, '80	Surveys Staff, Department of Interior.
Belleau, J. A.	Ottawa, Ont.	May 15, '83	" "
Bigger, C. A.	Ottawa, Ont.	Mar. 30, '82	" "
Bolton, L.	Listowel, Ont.	April 14, '72	
Bourgeault, A.	St. Jean Port Joli, Que.	Mar. 29, '83	
Bourgeault, C. E.	St. Jean Port Joli, Que.	Feb. 21, '88	
Bourget, C. A.	Ste Adelaide de Pabos, Que.	May 14, '84	
Bourne, R.	Fort Rouge, Winnipeg, Man.	June 17, '73	
Brabazon, A. J.	Ottawa, Ont.	May 12, '82	
Bray, S.	Ottawa, Ont.	Nov. 14, '83	Department of Indian Affairs.
Bray, E.	Onkville, Ont.	April 14, '72	
Brodie, S.	Fort Qu'Appelle, Assa.	April 14, '72	
Brownlee, J. H.	Victoria, B.C.	April 15, '87	
Burke, W.	Minnedosa, Man.	April 14, '72	
Burnet, H.	Victoria, B.C.	June 22, '85	
Burwell, H. M.	Vancouver, B.C.	Feb. 17, '87	
Carroll, C.	Prince Albert, Sask.	April 14, '72	
Caultley, R. W.	Dawson, Yukon Territory	Sept. 2, '96	
Cleveland, E. A.	Vancouver, B.C.	June 27, '99	
Côté, J. A.	Quebec, Que.	May 14, '84	
Côté, J. L.	Dawson, Yukon Territory.	Mar. 21, '90	
Cotton, A. F.	New Westminster, B.C.	May 11, '80	
Dalton, J. J.	Milton, Ont.	April 17, '79	Dominion Topographical Surveyor.
Deans, W. J.	Brandon, Man.	May 13, '86	
Dennis, J. S.	Regina, Assa.	Nov. 19, '77	Dom. Topographical Surveyor, Deputy Commissioner, Public Works, N.W.T.
Denny, H. C.	Calgary, Alta.	April 1, '82	
Desmeules, J. C.	Murray Bay, Que.	April 14, '72	
Dickson, H. G.	Whitehorse, Yukon Terr.	Mar. 19, '89	
Dickson, J.	Fenelon Falls, Ont.	April 14, '72	
Doupe, J.	Winnipeg, Man.	April 14, '72	
Doupe, J. L.	Winnipeg, Man.	Oct. 6, '88	Asst. Land Commissioner, C. P. Ry.
Drewry, W. S.	Victoria, B.C.	Nov. 14, '83	
Driscoll, A.	Edmonton, Alta.	Feb. 23, '87	
DuBerger, C. C.	Waterloo, Que.	Nov. 17, '81	
Ducker, W. A.	Winnipeg, Man.	Mar. 30, '83	Swamp Lands Commissioner.
Dumais, P. T. C.	Hull, Que.	Mar. 29, '82	
Edwards, G.	Thurso, Que.	April 14, '72	
Fairechild, C. C.	Simcoe, Ont.	Feb. 20, '01	
Fawcett, T.	Niagara Falls, Ont.	Nov. 18, '76	Dominion Topographical Surveyor.
Fawcett, A.	Dawson, Yukon Territory.	Feb. 22, '93	Alaska Commercial Company.
Fitzpatrick, J. D. A.	Kildare, Que.	Feb. 23, '87	
Fontaine, L. E.	Levis, Que.	Aug. 13, '92	
Foster, F. L.	Toronto, Ont.	April 14, '72	
Francis, J.	Poplar Point, Man.	June 17, '75	
Garden, J. F.	Vancouver, B.C.	May 15, '80	
Garden, G. H.	Lethbridge, Alta.	April 14, '72	
Garden, C.	Winnipeg, Man.	April 14, '72	
Gauvreau, L. P.	Quebec, Que.	April 14, '72	
Gibson, J.	Dawson, Yukon Territory.	Feb. 12, '91	Gold Commissioner's Office, Yukon Territory.
Gore, T. S.	Victoria, B.C.	April 19, '79	
Green, T. D.	Dawson, Yukon Territory.	May 19, '84	
Harris, J. W.	Winnipeg, Man.	April 14, '72	City Surveyor, Winnipeg.
Henderson, W.	Chilliwack, B.C.	Nov. 17, '83	
Hopkins, M. W.	Hamilton, Ont.	Feb. 20, '01	
Hubbell, E. W.	Ottawa, Ont.	May 19, '84	Surveys Staff, Department of Interior.
Jephson, R. J.	Calgary, Alta.	May 12, '80	District Engineer, N.W.T.
Johnson, A. W.	Kamloops, B.C.	Mar. 12, '02	
Klotz, J. J.	Ottawa, Ont.	Nov. 19, '77	Dom. Topograph. Surveyor, Astronomer Department of Interior.
Latimer, F. H.	Detroit, Mich.	Nov. 13, '85	
Laurie, R. C.	Battleford, Sask.	April 27, '83	District Engineer, N.W.T.

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APPENDIX No. 6 TO THE REPORT OF THE SURVEYOR GENERAL—*Con.*

LIST of Dominion Land Surveyors who have been supplied with Standard Measures—*Concluded.*

Name.	Address.	Date of Appointment.	Remarks.
Lowe, H.	Winnipeg, Man.	April 14, '72	
Lemone, C. E.	Quebec, Que.	Mich. 31, '82	
Lendrum, R. W.	Edmonton, Alta.	May 15, '80	
Loneragan, G. J.	Buckingham, Que.	Feb. 28, '01	
Lumsden, H. D.		April 14, '72	
MacPherson, C. W.	Dawson, Yukon Territory	Mich. 7, '90	
Magrath, C. A.	Lethbridge, Alta.	Nov. 16, '81	Dominion Topographical Surveyor, Land Commissioner, Alberta Railway and Coal Co.
Malcolm, L.	Blenheim, Ont.	April 14, '72	
Martin, A. F.	Winnipeg, Man.	April 14, '72	Swamp Lands Commissioner.
Miles, C. F.	Rat Portage, Ont.	April 14, '72	
Molloy, J.	Rosser, Man.	April 14, '72	
McArthur, J. J.	Ottawa, Ont.	April 17, '79	
McAree, J.	Toronto, Ont.	April 14, '72	Dominion Topographical Surveyor.
McFadden, M.	Neepawa, Man.	April 14, '72	
McFee, A.	Innisfail, Alta.	April 19, '79	
McGrandle, H.	Huntsville, Ont.	May 30, '83	
McKenna, J. J.	Dublin, Ont.	April 14, '72	
McKenzie, J.	New Westminster, B.C.	Nov. 18, '88	Dominion Lands Agent, New Westminster.
McLachie, J.	Nelson, B.C.	April 14, '72	
McLean, J. K.	Elora, Ont.	April 1, '82	
McPherson, A. J.	Brockville, Ont.	Feb. 21, '01	
McPhillips, G.	Windsor, Ont.	June 17, '75	
McVittie, A. W.	Blairmore, Alta.	Mich. 12, '02	
Ogilvie, W.	Ottawa, Ont.	April 14, '72	
O'Hara, W. F.	Chatham, Ont.	Feb. 19, '95	
Patrick, A. P.	Calgary, Alta.	Nov. 19, '77	Dominion Topographical Surveyor.
Pearce, W.	Calgary, Alta.	May 19, '89	Chief Inspector of Surveys, Department of Interior.
Proudfoot, H. B.	Toronto, Ont.	Mich. 28, '82	
Rainboth, E. J.	Aylmer, Que.	May 19, '81	
Rainboth, G. C.	Aylmer, Que.	April 14, '72	
Ralph, Wm.		April 14, '72	
Red, J. L.	Prince Albert, Sask.	April 14, '72	
Rinfret, R.	Dawson, Y.T.	Feb. 20, '00	
Ritchie, J. F.	Nelson, B.C.	Jan. 7, '89	
Robertson, H. H.	Montmagny, Que.	April 14, '72	
Roberts, V. M.	Sturgeon Falls, Ont.	May 17, '86	
Robinson, F. J.	Regina, Assa.	Feb. 29, '00	
Rorke, L. V.	Sudbury, Ont.	Aug. 13, '91	
Ross, J. E.	New Westminster, B.C.	Feb. 12, '91	
Roy, G. P.	Quebec, Que.	Nov. 17, '81	
Saint-Cyr, J. B.	Ste. Anne-de-la-Perade, Que.	Feb. 17, '81	
Saint-Cyr, A.	Ottawa, Ont.	Feb. 17, '87	Surveys Staff, Dept. of Interior.
Saunders, B. J.	Regina, Assa.	Nov. 16, '84	Dept. of Public Works, N.W.T.
Seager, E.	Rat Portage, Ont.	April 14, '72	
Selby, H. W.	Wabigoon, Ont.	Nov. 15, '82	
Shaw, C. A. E.	Victoria, B.C.	May 10, '89	
Speight, Thos.	Toronto, Ont.	Nov. 16, '82	
Starkey, S. M.	Starkey's P.O., N.S.	April 14, '72	
Stewart, G. A.	Calgary, Alta.	April 14, '72	
Stewart, L. B.	Toronto, Ont.	Nov. 22, '82	Dominion Topographical Surveyor, Secretary School of Practical Science, Toronto.
Stewart, E.	Ottawa, Ont.	April 14, '72	Chief Inspector of Timber and Forestry.
Talbot, A. C.	Ottawa, Ont.	May 13, '80	Surveys Staff, Dept. of Interior.
Thompson, W. T.	Fort Qu'Appelle, Assa.	Nov. 19, '77	Dominion Topographical Surveyor and District Engineer, N.W.T.
Tremblay, A. J.	Les Eboulements, Que.	Feb. 18, '90	
Towle, C. E.	Waterloo, Que.	April 14, '72	
Turnbull, T.	Winnipeg, Man.	Mich. 29, '82	
Tyrrell, J. W.	Hamilton, Ont.	Feb. 16, '87	
Vaughan, J. W.	Vancouver, B.C.	June 11, '78	
Vicars, J.	New Westminster, B.C.	May 17, '86	
Wallace, J. N.	Hamilton, Ont.	Feb. 29, '00	
Wheeler, A. O.	Calgary, Alta.	Nov. 21, '82	Surveys Staff, Dept. of Interior.
White-Fraser, G. W. R.	Toronto, Ont.	Feb. 21, '88	Dominion Topographical Surveyor.
Wilkins, F. W.	Norwood, Ont.	May 18, '81	Dominion Topographical Surveyor.
Wilkinson, W. D.	Toronto, Ont.	Feb. 22, '93	
Woods, J. E.	Blairmore, Alta.	Nov. 14, '85	

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APPENDIX No. 7 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF THE CHIEF INSPECTOR OF SURVEYS.

CALGARY, Alta., June 30, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to report on my work during the past departmental year, as follows:—

At the beginning of July last, I was engaged in connection with an inspection regarding the possibilities of an irrigation scheme from the Bow river through Snake valley to water that section of country lying between the Bow and Belly rivers as far west as about range 20, west of the 4th meridian. Shortly after that work was completed, I was summoned to Ottawa by the minister in connection with the selection of the 50,000 acres of coal lands, and by his orders went to Fernie coal fields and was engaged there and in Ottawa in connection with the same till late in November, when I returned to Calgary.

During December and the early part of January, I was endeavouring to arrange the records of my office, as owing to my almost continual absence from my office for the past four years, and having no one in it to keep track of the records, it was found that things had fallen into such a state that it will require a good deal of time in clerical work to put the office into the condition it is desirable it should be, assuming, of course, that the information that is in it, and much of which is very valuable, is put into such a shape and kept so that it can be made available when required.

On January 18, I proceeded to Winnipeg to arrange for the inspection of certain surveys, and during February and March, was engaged on such work, having inspected and looked after certain matters in south-eastern Manitoba, and also some subdivision surveys performed north of Quill lakes in the Territories.

In the latter end of March, I was summoned to Ottawa by the minister, and at his request remained there well on into May, reaching home on the 24th of that month, when I found the country so wet, it was impossible to move, therefore, employed myself arranging my office affairs until the 14th instant, when I started to make an inspection of contracts 11, 12 and 13, and have been engaged on that work up to date.

Detailed reports in connection with the various matters I have been connected with were from time to time made to the Minister of the Interior, and it is not necessary here more than briefly to allude to them.

I have the honour to be, sir,

Your obedient servant,

WM. PEARCE,

Inspector.

APPENDIX No. 8 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF C. F. AYLSWORTH, D.L.S.

SURVEYS IN MANITOBA.

MADOC, July 2, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour, in accordance with your instructions to me, dated January 26, 1900, to submit the following report on the season's operations in the field, that is to say, surveys in connection with the subdivision of the Thunder Hill, Doukhobor reserve.

I left Madoc on February 12 and arrived in Winnipeg on the 17th, where I procured supplies and engaged a number of men. I despatched two men in advance to Saltecoats, to which place they were to bring the transport outfit from a point some thirty miles out. I arrived in Saltecoats on the 22nd where I had my supplies shipped and intended going from there via Kamsack to Fort Pelly, but on account of a recent heavy fall of snow which rendered a trail, such as this, seldom travelled, heavy and almost impassable, I decided finally to travel via Yorkton, Sliding hills, and Whitesand river bridge to Fort Pelly.

We found that travelling on the road between Yorkton and Fort Pelly could reasonably be compared to travelling through a desert. Our horses had no water from noon of the day we left Yorkton until the evening of the day following.

On the 26th, we started heavily loaded from Saltecoats for Fort Pelly where we arrived at 10 p.m., on February 28, the last ten miles being travelled through two feet of snow with no road broken to guide or assist us. On the second day of March, after completing some further organization, we proceeded through the snow to Snake creek, and on the sixth, we arrived in township 36, range 31, west of the principal meridian, where we camped, having had considerable trouble to find water. The weather during this expedition was very unfavourable, being intensely cold and stormy. We then proceeded with the subdivision of this township. I found it very heavily timbered, but did not permit this circumstance to deter me from having the lines I ran, thoroughly cleared out, until April 6, when I considered better progress would be made by moving to section 3, township 35, range 31, where we proceeded with the subdivision of that township, with comparatively dry footing. The south end of this township is generally open, but the north end is covered with considerable dead fallen spruce of large dimensions and a dense growth of poplar scrub.

I found while running the south boundary of this township and making a straight line between the south-west angle and the south-east angle thereof, when I intersected at the jog the north-west angle of township 34, range 31, that provision had been made for a road only 59 links wide on the correction line. I was, therefore, compelled to alter the posts at the said south-west angle of township 35, range 31, and at the said north-west angle of said township 34, range 31, in order to make the road allowance of the proper width. This will necessitate the shifting, in the future, of all the posts planted on the north and south sides of this correction line, westerly to the 2nd meridian.

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Also, in running the north boundary of section 12 in township 35, range 31, the south half of this township having been already subdivided according to the sketch accompanying my instructions whereon the width of the east boundary of the south-east quarter of section 1 was shown as 41 chains, 20 links, when I came to tie on to the post at the north-east angle of said section 12, I found that my line came 93 links to the north of the post. I, therefore, suspected an error somewhere and proceeded to check the chainage across the east boundary of sections 12 and 1, and found the error to be in the south-east quarter of section 1, where the distance should be forty chains and twenty links instead of forty-one chains and twenty links, as per the sketch. I also had another check in this matter while subdividing township 35, range 30. I also ran the south side of the correction line road allowance across the north end of township 34, range 31, and produced the uncompleted lines in this township northerly to the said correction line.

On May 17, I completed the subdivision of township 35, range 31, and on May 18 moved camp to section 34, township 35, range 30, and proceeded to run the north boundary of this township which I completed on the 21st, and on the 22nd, moved to the south boundary of the same township, which I ran, and then proceeded with the subdivision of it, together with the subdivision of the south half of township 36, range 30, all of which I completed on August 8, and on the 9th started for township 33, range 30, completing the subdivision of it on September 13.

I found the soil in this township to be excellent, in fact much better than that in any of the townships I have been engaged in during this season.

Regarding the Doukhobors, for whom I believe this land has been subdivided, and who are now living in villages in these townships, I can add little to what has already been written. Their religious beliefs, domestic, social, and national characteristics, as well as their systems of marriage, and cohabitation, have already been discussed. Regarding the question whether they are intelligent, loyal, patriotic citizens, suitable for a progressive country such as Canada, and the further question of their supposed objection to participating in military affairs and assisting in the defence of the country of their adoption, I may add after a year's observance of these people that I do not believe Canada will be disgraced in any of the above particulars through the acquisition of the Doukhobors.

I regret that as it is now nearly two years since I did this work, and was among these people, I, therefore, am unable to describe the progress they have made up to date. If the district in which they have settled will yield results in any way commensurate with the industry and intelligence that the people display, they are bound to succeed. To illustrate, many of the Doukhobor villages are built adjoining and on either side of the Swan river. As continuous intercourse with one another was desirable, and fording the river was always dangerous even at the most favourable places, they required a bridge. Instead of spending the winter in circulating a petition asking government aid, they began work themselves and succeeded in building three strong bridges over which teams and loaded wagons could pass with safety. Many other instances affording proof of their industry and other very favourable characteristics, might be cited if space permitted. There appeared to be some disposition in some parts to abandon the village system, each family residing on its own farm, but I do not know what progress was made along this line. On account of having received instructions from you not to continue operations in the field beyond October 15, I decided to mound up the lines I had run during the time the ground was frozen last winter, in township 36, range 31, and then close down, which I did. I completed this work on October 17 and on the 18th, moved to Fort Pelly. On the 19th, I proceeded towards Yorkton, and arrived at Wm. Reekie's, where I made arrangements with him to keep the horses, and without delay settled up the balance of the affairs connected with this season's work.

Pursuant to further instructions from you, on October 13, 1900, having been joined by an assistant, I proceeded to Russell to renew the corners in township 23, range

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27. When I arrived at this township, the settlers living in it told me that the posts were all obliterated years ago, and that I would be unable to find any of them, but as the returns will show, I succeeded in finding nearly all the posts I searched for, but was suddenly interrupted in the satisfactory prosecution of this work by a heavy fall of snow on November 12. On November 13, I left for Russell where I settled with my party and assistant.

From here on the 14th, pursuant to instructions from you dated October 27, 1900, I proceeded to the Swan river district to mound and post thirty-eight miles of township outlines that had been surveyed during the previous winter while the frost was in the ground and could not, therefore, be mounded, in the following townships—the east boundary of township 43, range 26, west of the principal meridian, the east and north boundaries of township 44, range 26, west of the principal meridian, parts of the east and north boundaries of township 44, range 27, west of the principal meridian, part of the south boundary of township 45, range 24, west of the principal meridian, parts of the west and south boundaries of township 45, range 25, west of the principal meridian, and part of the east boundary of township 45, range 27, west of the principal meridian. I did not take any of my camp equipment with me from Yorkton where it was stored, but presumed that I could hire or buy a tent in Swan river for such a short expedition as this. When I arrived at Swan river, after some delay, I heard of a tent, used by the owner for hunting purposes, which, after examining the portions shown me, I concluded would answer the purpose, but when we arrived at our destination to the north of the Porcupine mountains, via the Canadian Northern railway, and proceeded to erect our tent on the evening of the first day, we found to our surprise that it was nothing better than a rotten canvas sieve, and liable to collapse at any moment. However, as we were packing our outfit on our backs with pack straps, we had little time to worry about the good or bad qualities of our tent.

In your instructions to me regarding this work, I find the following: 'If you take enough labourers, you should be able to finish this work in a few days,' and I endeavoured to comply with this, but was afraid during the progress of the work that the attempt would finish me, as I had only taken a pair of moccasins, and walking over the frozen hummucky ground covered with merely a sprinkling of snow, gradually but effectually disabled my lower extremities until at the termination of the expedition, it was with difficulty that I could move my lower limbs, but strange to say, the moment I put on boots, the pain disappeared. By November 21, I had organized a party and completed my outfit at Swan river, and on that day all entrained for Baden station. On the train, fortunately, I met Chief Engineer MacLeod and locating Engineer Armstrong, of the Canadian Northern railway, who were good enough to give me the distance west of Baden where I would find a meridian. I arrived at Mafeking station about four miles south of the Steeprock river on November 29 after completing our work, and on Monday, December 3, took the train for Swan river, where I settled with my party and got away towards home on the same train.

Pursuant to instruction from you dated January 7, 1901, after having organized a party and transported my outfit from beyond Yorkton to Beauséjour, I got into my first camp on the banks of the Brokenhead river at the north boundary of township 12, range 8, east of the principal meridian, on January 21st, which township, after retracing its outlines, I proceeded to subdivide. I found that the portion of this township lying east of the Brokenhead river, is principally a tamarack and spruce swamp, where large quantities of wood have been cut for shipment to Winnipeg. Under ordinary circumstances we would have found manœuvring through this township difficult on account of the deep snow, but the wood cutters had roads beaten in almost every direction, which we were enabled to take advantage of. The greater portion of this township will never be fit for agricultural purposes until it has been extensively drained, the cost of which should not be great on account of its proximity to the Brokenhead river.

Pursuant to instructions from you dated February 6, 1901, I moved to Tyndall on April 15, to survey that village, being the south half of the north-east quarter of sec-

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tion 11, township 13, range 6, east of the principal meridian, but before proceeding with the subdivision of the above village plot, on account of being unable to find any of the original outside boundaries of this section 11, I was compelled to proceed to the south-east corner of this township to survey the south boundary of the same, westerly to the south-east angle of section 4, where I found an original post. I also retraced the east boundary of sections 2, 11, 14, and to the middle of section 23, which was the first corner along the several sections where I found an original post. I then made a straight line between the post at the south-east angle of said section 2 and the post at the middle of said section 23. Some of the people in Tyndall said this straight line and the corner I established at the north-east angle of section 11 were not in the same places as the line and corner in the original. On making inquiries, I found that Thomas Pierson was the originator of the objections, so I interviewed him, and he quite candidly told me that my line did not conform to the original survey, and that he would swear as to where the original line ran, and as to where the old post stood, so I took his affidavit. On account of the indefiniteness of this affidavit, I refused to be guided by it, and later on in this report, I will make it clear that Mr. Pierson is entirely mistaken.

I then proceeded to the south-east angle of section 3, and retraced the meridian north across sections 3 and 10 to the north-east angle thereof where I found the original corner. I also found all the corners across these two sections excepting the post for the south-east angle of 3, which I established by subdivision. When Mr. Pierson swore to where he considered the north-east angle of section 11 was he also told me, that he knew where the north-east angle of 10 was and would swear to that. I had already found this corner, and I had also found that the original blazed line for the north boundary of section 11 ran to the post I had found. I then took Mr. Pierson's affidavit, and by examination it will be found that Mr. Pierson is entirely mistaken, and that I was justified in rejecting his affidavit. I may add further that I went to Winnipeg purposely to examine the original Canadian Pacific railway right of way plans across this section 11, and I found according to said Canadian Pacific railway plan that the angle of centre line and east boundary of section 11 was $74^{\circ} 55'$ which I tested and found to agree with my angle. From this, I proceeded with the other out-lines and quartering of section 11 without any difficulty. After this, I proceeded with the subdivision of the town plot. I had already procured the tamarack and spruce material for posts from the swamp near the Brokenhead river and hewed them with an axe. The posts planted in this subdivision were marked with a knife with the figures of the lots and streets which they adjoined. The greater portion of the east half of this town plot has been squatted upon, and a great amount of cordwood had been piled upon the land. The west half was overgrown with a dense growth of poplar and willow scrub, thus rendering the subdivision very tedious. I endeavoured to design this subdivision so as to place as many as possible of the valuable buildings entirely upon the single lot.

Outside of the cities and towns along the Canadian Pacific railway, I believe Tyndall is the best paying station between Rat Portage and Brandon. Between eighteen and twenty thousand cords of wood are shipped from here annually. Great quantities of lime are manufactured and sold from here. Henry & Son have an extensive building stone quarry, and last, but not least, is the Tyndall stone quarry, the principal of which is Mr. William Garson, recently from Lincoln county, Ont., where he gained his experience in handling stone. He has shown great business enterprise in the development of this industry during the season of 1901, their first year. They supplied stone for the Canadian Pacific railway bridge over Red river at Winnipeg, also for the new Canadian Northern bridge there, and for the bridge across Rainy river at Beaver Mills. They have the quarry equipped with the latest type of machinery and are during their first season getting more orders for stone than they are able to fill. A large proportion of the stone they ship is dressed to order, which requires skilled stone cutters who were paid last year fifty cents an hour, and on account of the

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scarcity of these, Mr. Garson was unable to fill all his orders. There is considerable agricultural land in the neighbourhood capable of development, so that the prospects for Tyndall are quite bright, and already in the village there is a fine stone school house, a union Methodist and Presbyterian church, and an hotel, all new buildings.

On May 21, 1901, we completed the subdivision of the Tyndall town plot and on the 22nd, moved camp to the north-west angle of township 12, range 7, east of the principal meridian, and proceeded with the survey of the outlines and subdivision of this township which was completed on July 31. The timber that previously existed in this township has been either chopped down and removed or burned, and the land is now principally covered with poplar scrub. The township contains large areas of muskegs and sloughs and the land is second class. There are a few settlers in the south-west and north-east corners. The municipal council and real estate agents who own lands in this township have had many surveys made, sometimes by surveyors and at other times by parties who were not surveyors, the former for road-making purposes, and the latter to establish the lines in order that purchasers, or intending purchasers, may locate lands, and in every case, these lines were wrong. Large sums of money had been expended to grade up and improve the roads wrongly situated in accordance with these incorrect surveys. To illustrate, while running the east boundary of section 29, township 12, range 8, I found the original line and the original post, the latter under two feet of snow, but the municipality had chopped the road out about one and one-half chains to the east of them, according to their surveyor's lines. The council of Brokenhead, after the above mentioned experience, desired to grade up some roads in township 13, range 7, east of the principal meridian, and to make the grades in such a manner as to answer the double purpose of road and drain. The council asked me to resurvey and report certain road allowances for them for this purpose in the last named township, and upon submitting this matter to you, you directed me to do this work, the returns of which I will forward later.

After the completion of the subdivision of township 12, range 7, I moved township 12, range 8. I moved camp to township 11, range 8, east of the principal meridian, on August 17, and proceeded with the survey of the outlines and subdivision of same, which we completed on the 30th October, 1901, and on the 31st, we moved camp to section 9, township 12, range 8, again, and completed some work in this township by November 4, on which day I moved camp to Beauséjour where I discharged my party, stored the outfit, and started as soon as possible for home.

After my arrival home, I received a letter from you addressed to me at Ft. Owens, Man., but which had not arrived when I left Ft. Owens, directing me to call upon Mr. J. Obed Smith, immigration commissioner at Winnipeg, with a view to reposting certain townships near Shoal lake, Man. I then left home on December 9, 1901, to do this work, and after getting a party organized, I got into camp on section 24, township 16, range 1, west of the principal meridian, on December 28, and proceeded to retrace the principal meridian across this township, also the north and south boundaries of same, and then to subdivide it, which I completed on January 28, 1902, and on the 29th, moved camp to section 28, township 16, range 2, and completed the resurvey of this township and of township 17, range 2, by March 2 and on the 4th, moved to section 36, township 15, range 3, west of the principal meridian, but on account of the snow and rain storms which prevailed during this month, we did very little work. What was said to be the most terrible snowstorm and blizzard within the recollection of the oldest residents of Manitoba, set in on the 14th. Probably two feet of snow fell during this storm, which lasted into the 18th, when the weather turned warm until the 21st, converting the snow into a slush. This was followed by rain until the 25th. We were camped on an island bluff surrounded by a large muskeg the water in which rose until we were flooded out: in a drenching cold rain we struck camp and moved six miles away, being the nearest dry camping ground we could find. This rain continued until the 27th, leaving the country, which should not be termed low, practically flooded. The men were getting into a rebellious mood, not being willing to wade through this

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cold water at this early season, and you may imagine my relief at this juncture, when I received a letter from you on the 28th directing that it was not contemplated to continue this work further.

I then proceeded to close down with as little delay as possible.

On account of the ground being frozen, I did not mound any of this work. The frozen clay and gravel composition of this soil practically resisted the most persistent efforts with pick, axe and shovel. In fact, it took five men one-half day to put up one mound, in which time they destroyed all the tools they used.

I have the honour to be, sir,
Your obedient servant,

C. F. AYLSWORTH, JR., *D.L.S.*

APPENDIX No. 9 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF J. A. COTE, D.L.S.

SURVEYS IN SOUTH-EASTERN MANITOBA.

QUEBEC, July 5, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to submit the following general report on my surveys made during the past season in south-eastern Manitoba, under instructions dated April 13, 1901.

On May 1, I left home with my assistant, Mr. P. A. Landry, P.L.S., for Winnipeg, which place I reached on the 5th of the same month.

On my arrival there, I met Mr. Walter Greer, who had been appointed to my party, and reported his arrival to me. I remained at Winnipeg until May 8, hiring men and buying the necessary supplies, when I left with my party for Bedford, where I arrived on the afternoon of the same day. On the following day, I left Bedford for Vassar with one of my men to procure Mr. Carroll's outfit left in winter quarters. I found that one of the horses had died during the winter so that I was obliged to purchase two to make up my full complement of five.

On the 13th, I commenced work by searching for the old posts on the second base line in range 9, but not being able to find any, was obliged to re-establish this line, putting in iron posts according to the Manual of Survey.

Township 5, range 9, east of principal meridian—I subdivided only the south-western part of this township, the portion between Bedford station and Marchand being swampy and covered with tamarack, spruce and cedar, suitable only for fuel and fence rails. The remainder is very sandy and hilly. The timber is chiefly jackpine, partially killed by fire. In sections 4 and 9, the soil is second class. Sections 5, 6, 7 and 8 are a tamarack, spruce and cedar swamp.

The South-eastern railway crosses sections 9 and 3, Bedford station being situated on the south-west quarter of section 9.

Township 4, range 9, east of principal meridian—I surveyed the east outline of this township and subdivided the north-east part, this being the only portion fit for settlement at present. The remainder is swampy and covered with spruce, tamarack and cedar of an average diameter of six inches, and only suitable for fuel and fence rails. The soil of the part subdivided is second class, and is covered with jackpine, partially killed by fire.

The South-eastern railway crosses sections 33, 28, 27, 22, 23, 24 and 13; Sandiland, the 7th siding, is situated on the north-east quarter of section 22.

Township 3, range 10, east of principal meridian—I surveyed the north boundary of township 3, range 10, and subdivided the south part of township 4; this is all that seems to me fit for settlers; the remainder of the township is very sandy.

The soil in sections 3, 4, 5, 6, 7, 8, 9 and 18, is first class and is covered with spruce, tamarack and poplar. The soil in the remainder is second class, covered with dry and green jackpine.

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The South-eastern railway crosses sections 18, 17, 16, 15 10, 11, 2 and 1. Woodridge station, the 8th siding, is situated on the south-east quarter of section 10.

I found three settlers located in this township, and many others were expected in the fall.

Township 3, range 10, east of principal meridian—In this township, I surveyed the east boundary of section 35, and the north of section 25. These lines run through a spruce and tamarack swamp. The South-eastern railway crosses section 36.

Township 4, range 11, east of principal meridian—I surveyed the east boundary and subdivided the north half of this township, as this was the only portion fit for settlement. Sections 1 and 36 are spruce swamp, and the others are covered with poplar, and the land is good. The remainder of the township is very sandy. There is a creek about three feet deep running north-easterly across sections 20, 21, 22, 27, 26 and 35, the water in which is very good.

The soil of the subdivided part is first class with the exception of sections 19, 30 and 31; these are swampy and covered with spruce and tamarack, averaging eight inches in diameter. The remainder is covered with poplar and spruce partially killed by fire and overgrown with heavy underbrush. I found several settlers located here; many others were looking for homesteads, and they expected many more to come in during the fall. Some were just beginning to build their houses. There is a saw-mill here, built about a year ago by Mr. Pierre Poitras for the convenience of the settlers.

Township 3, range 11, east of principal meridian—The soil along the north, east and south boundaries of this township is sand, and covered with jackpine. The soil of the subdivided part is first class and is covered with poplar killed by fire, and overgrown with heavy underbrush. The soil of most of the remainder of the township is sand. Rat river runs south-westerly across sections 32, 33, 28, 20, 19 and 18, and the South-eastern railway crosses sections 31, 32, 29, 28 and 21.

Township 1, range 13, east of principal meridian—The western three miles of the north boundary of this township passes through jackpine and poplar and the eastern three miles through tamarack swamp. In the subdivided portion, there is about fifty per cent of good land covered with poplar, the rest being tamarack and spruce swamp, the timber in which is only suitable for fuel.

The South-eastern railway crosses sections, 32, 29, 28, 21, 16, 15, 14 and 13, and is very convenient for settlers.

On the 29th November on receiving instructions from you to proceed at once with the subdivision of township 1, range 8, I discontinued the survey of range 14.

I left Vassar on December 3 and reached the north-east corner of township 2, range 8, on the 11th of the same month after having made about twenty miles of road through the bush and marshes.

Township 2, range 8, east of principal meridian—The east boundary of this township is swamp and is covered with small dry tamarack killed by fire. The soil along the north boundary is first class and is covered with dry poplar, willows and brush, and large hay marshes with scrub. All this township is high land and suitable for stock-raising.

Township 1, range 8, east of principal meridian—The Roseau river crosses this township in a north-westerly direction through sections 6 and 7. The west half of this township is first class, the soil being a black loam three inches in depth with a clay subsoil. The east half is second class. The soil is clay, stone and gravel. Dry and green poplar may be found all over the township, although some has been used by the surrounding settlers. First class hay meadows are also plentiful offering a splendid opportunity for intending settlers who would like to do mixed farming.

Township 1, range 9, east of principal meridian—The north boundary crosses a large swamp in which spruce and tamarack from four to twelve inches in diameter may be found. The east boundary is covered with dry poplar and willows, the soil being sandy.

Township 2, range 9, east of principal meridian—The north boundary of sections 31, 32 and 33, is swampy and covered with small dry tamarack, and the north boundary

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of sections 34, 35 and 36, is also swampy and covered with spruce and tamarack from four to ten inches in diameter. The east boundary is also swampy, but the timber is small.

Township 1, range 10, east of principal meridian—The boundary on the north of sections 31, 32, 33 and 34, runs through swamp in which the timber, such as cedar, spruce and tamarack, varies in diameter from four to fifteen inches. The north boundary of sections 35 and 36 runs through a ridge covered with small jackpine.

Township 2, range 10, east of principal meridian—The north boundary of sections 31 and 32 runs through swamp covered with spruce and tamarack, and the north boundary of sections 33, 34, 35 and 36, is covered with dry jackpine and poplar. The soil is sandy.

Township 3, range 10, east of principal meridian—The boundaries of this township run through about the same kind of country as those of township 2, range 10, east of principal meridian.

Township 3, range 12, east of principal meridian—The boundaries of sections 1, 12, 13 and 24, are swampy and covered with dry timber such as tamarack, poplar, and cedar. In sections 25 and 26, the soil is sandy and covered with dry poplar and heavy willows.

Township 4, range 12, east of principal meridian—The east boundary of this township runs through a large swamp covered with timber such as spruce, tamarack and cedar, averaging six inches in diameter.

On February 26, I had the misfortune to lose one of my horses, leaving me with only four to do my work. The cause of death is unknown, as the animal was found dead on the prairie.

On June 2, according to your instructions, I discharged my party and on the 10th of same month, I reached my home after an absence of thirteen months and a half.

I have the honour to be, sir,
Your obedient servant,

J. A. COTE, *D.L.S.*

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APPENDIX No. 10 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF R. BOURNE, D.L.S.

SURVEY OF THE PRINCIPAL MERIDIAN.

GIMLI, MAN., December 21, 1901.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—In accordance with your instructions I left Winnipeg on June 18, and on June 22, I continued the resurvey of the principal meridian from the point on the east boundary of township 19, range 1, west, where I had ceased work on April 16. I resurveyed the meridian across townships 19 and 20. At the north-east corner of township 20, the surveyed portion of the meridian ended, and I commenced the new survey by taking several careful solar and stellar observations. In compliance with your instructions, I ran the principal meridian due north from this corner to the north-east corner of township 24, range 1, west, on the 7th base line, taking careful observations at each township corner and at the centre of each township.

Though most anxious to make rapid progress, I was greatly hampered by the nature of the country as I found nothing but solid bush and large swamps fed by copious springs stretching for miles across my path. The men were in constant danger of breaking through the floating crust of these swamps and of sinking almost out of sight. It was most tedious work to cross these with the line and to circumvent them with the road, which I was obliged to make for the use of my teams, and I had sometimes to cut three miles of road through heavy bush to make one straight mile.

In township 18, the line passes through a low country with dense forests of heavy poplar and brush interspersed with small swamps, and emerges on a high partly open stretch which rises to a distinct ridge at the second mile of township 19, where the land is covered with light brush and thin woods (poplar and some spruce). From this point, the land is again similar to that in township 18, with a ridge near the north-east corner of section 25 in township 19, and another in the north-east quarter of section 24, township 20. In the northern part of township 20, the large swamps, mentioned above, begin, and spruce and tamarack become more frequent than in the southern part of the township where spruce was met but twice and then only in patches. The last and worst of the big swamps, two miles long, was left behind at the third mile of township 22. From this point to the northern part of township 24, the land is fairly dry, excepting for two small tamarack swamps, one south of Icelandic river, at the second mile of township 23, and the other half a mile south of the 7th base line. A marked feature of township 24 is a stretch of high land for the first two and a half miles, containing a large stretch of bare limestone rock, much of which is flat and wide enough to make valuable pavement.

7th Base Line.

On turning east from the north-east corner of township 24, range 1, west, there is low swampy land for two and a half miles with occasional stony ridges covered by medium size spruce, tamarack and poplar, with bush. The surface gradually rises to

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the high stony land which extends over the last three and a half miles of township 24. This stony land is covered chiefly by a dense growth of small jackpine with some small poplar and many very thick windfalls; granite boulders, often large, and some limestone, being met with. For the last three miles of township 24, I find that the surface is underlain by a floor-like rock especially noticeable at the north-east corner of township 24, range 1, east, where difficulty was found in getting sufficient soil to make a mound, the iron post having to be propped up with stones. Before turning south as instructed, I explored the country east of this point with a view to finding an exit, and ascertained that at about half a mile east of this corner there is a descent into a valley thirty feet deep, the land being covered with small jackpine and burnt timber. A mile east of the corner of township 24, a feature quite interesting but rarely found in Manitoba, is met with—a lofty ledge of rock rising about seventy feet out of a valley to the east and stretching as far as the eye can see north-westerly and south-easterly. It is made up of reddish stone, with a tinge of pink, suggesting magnesian limestone, in fairly horizontal strata, and in layers with joints as of mortar, of from two to twelve inches in thickness. It is easy of detachment, huge masses having fallen from the top of the rock carrying with them birch trees rooted in the surface soil. The rock is readily broken with a hammer and if of commercial worth will prove a valuable asset. Beyond this cliff for a width of about a mile and a half, reaching, I am told, from Icelandic to Fisher rivers, extends a long belt of muskeg and lake, separated by strips of spruce, tamarac and balm of gilead, of about six inches average diameter. On the moss grows an abundance of the rare and juicy low bush cranberry, quite as large as those imported, and offering a very valuable product to commercial enterprise. This belt is difficult of traverse, except on the above strips, where a corduroy road could be made, an ascent of the cliff being also feasible through its clefts; thence, my trail to the base line may be used. Besides, I have cut a trail from the Fisher river road for a mile and a half to the easterly border of this wet area. This trail might be serviceable to reach the land along the 7th base line, as it traverses a dry country, covered by poplar and spruce, with diameters up to twenty-four inches, fit for commercial timber, the soil being a black loam up to eighteen inches and more in depth.

Townships 24 and 23, range 1, east—Going southerly along the eastern boundaries of these townships for the first five miles, there is the same rolling land, often stony, covered chiefly with jackpine and poplar, as on the 7th base line, followed by swampy country with patches of spruce, tamarack and poplar, offering with its great reaches of fine hay land and abundant water, a paradise for the grazier. Of course, for permanent settlement, drainage is an absolute necessity.

Going westerly along the south boundary of township 23, range 1, east, a description similar to that given for the eastern boundary holds for three and a half miles; beyond this, higher land covered by good sized poplar extends to the principal meridian.

Soil.

The soil in most parts of the land passed through, is a black loam, or leaf mould, with a clay sand, or gravel subsoil, and, except on the stony ridges, is of sufficient depth for profitable tillage.

Water.

Of the nature of the water to be found at any great depth below the surface, I, of course, cannot speak, having but dug shallow wells at the edge of sloughs. These gave fair water, except in a few cases where it was bitter or alkaline. In stony places, water is naturally scarce, except in intervening sloughs, but it may possibly be found by boring.

I have the honour to be, sir,
Your obedient servant,

R. BOURNE, D.L.S.

APPENDIX No. 11 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF JAS. DICKSON, D.L.S.

SURVEYS IN SASKATCHEWAN DISTRICT.

FENELON FALLS, January 21, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to report that in compliance with your instructions dated April 13, 1901, I left home for the Saskatchewan district on the 29th of the month. My instructions were to run the meridian outlines across townships 45 and 46 between ranges 5 and 13, and across townships 47 and 48 between ranges 9 and 13, west of the second meridian.

I arrived in Winnipeg on May 2, where I was joined by my assistant, Mr. A. McNabb, of Prince Albert, and proceeded to Dauphin the following Saturday with three of my party exclusive of the assistant. I was delayed here a week waiting a train to Erwood. In the meantime, I went north to Ethelbert and disposed of D.L.S. Desmeules' outfit, as directed in my instructions; the remainder of the time, I was engaged purchasing horses and completing my party.

On the morning of the 11th, the party took train for Erwood, the terminus of the Canadian Northern railway. I learned there that the right of way of the railway was cleared out one hundred feet wide for about sixty miles farther west, and that for the first forty miles its greatest distance from the twelfth base line did not exceed two miles, and that there was also what is locally called a 'tote road,' or trail, made for the purpose of forwarding railway supplies; it is as near the line of railway as the character of the country will admit. Erwood station is located about thirty chains east of the railway crossing at Red Deer river, and at the east side of section 12, township 45, range 2, west of the second meridian, and about twenty-three miles east of where I commenced my survey.

As the river was too deep to ford, I had the railway bridge floored with ties so that I could cross my horses, &c. On the 14th, I made a start, and camped for the night at the point where the tote road crosses the base line, eight chains east of the north-east corner of township 44, range 2.

The trail was in bad condition and required many repairs, and as it has been constructed for winter use only, it consequently followed the marshes as much as possible, and to avoid these, we were obliged to make many deviations; it was, therefore, the 18th before I reached the point between ranges 5 and 6 at which I was to commence work.

Next morning, I got an observation, and on Monday, the 20th, commenced the survey; by the following Saturday, I had the line completed across township 45. The previous evening, Mr. McNabb tendered his resignation, stating that he could not stand the work, but I prevailed upon him to remain until I should complete my first line. The following day, some of the men improved the trail to the west, and put a bridge across Prairie river while the others were improving an old Indian trail, which passed a short distance east of my camp, and crossed the line near its north end. I then moved camp to the end of the line, using pack horses, and after completing the survey of the line across township 46, I returned to my first camp.

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Here, two of the horses took ill; one of them could not travel back to camp, a distance of six miles, but had to be left in the woods all night in charge of two men. Next morning, he was brought to the camp, and I had both horses stabled at Greenwood, where the railway company had at that time a depot for provisions one and a half miles east of my camp, and the horses could be properly fed and cared for. One of them died a few days afterwards, and the other so far recovered that I had him brought back to camp in a few days. Two of my men and the man in charge of the depot were well skilled in horses, and I had a supply of horse medicine, so that everything was done for them that could be done under the circumstances. They sickened as soon as they were fed on grass. On June 6, I moved west and camped on the right of way at a point which proved to be five chains west of my next line, and one mile and fifty chains north of the base line. Next morning, my assistant, Mr. McNabb, left. That day with the assistance of two men, I located the east boundary of range 7 on the base line, and spent the night there in the hopes of getting an observation, but failed, and consequently, Saturday was passed in idleness. That night I got an observation, and on the 10th, I commenced the survey of the east boundary of range 7, township 45. While running my first line, I had found so much difficulty in getting along even with pack horses owing to the sloughs and fallen timber, and as this line was worse, I determined to leave my main camp where it was and take a flying camp along the line, the men doing the packing. This proved to be quicker and no harder work than on the first line. I finished the survey of the line across township 46 on the 21st, and returned to the main camp next day. The bull-dog flies were so troublesome to the horses that I was obliged to have some of the bed ticks and blankets cut up and made into covers for them. Two of the horses in a weak condition suffered so much from the flies that I had them housed in an old stable. The feed for horses here was of very poor quality, being nearly all what is known as water-grass, consequently they began to fail rapidly. Monday, the 24th, was spent in brushing some of the wet spots, and cutting a new trail to the west around a large slough.

Next morning only four of the horses were fit for work, and they could draw only half a load. One horse could not travel at all, and had to be left in the old stable where one of the men went each day to attend to him until the end of the third day when he was able by easy stages to get to camp. We travelled that day until 7 p.m., and only made three and a half miles. The following day by noon, we covered one mile and a half more to a river, over which we had to make a bridge seventy feet long. This stream is not shown on any map I have seen. It is locally known as Prairie river; but there is another river bearing the same name although not more than one-fourth its size, and about eight miles east of it. It crosses the east boundary of township 44, range 8, four times and enters Red Deer river about one mile east of where that stream crosses the line. Between road making and wet weather, we did not reach our next camp, six miles west of the last one, until noon on Friday the 28th. With two men and my instrument, I went a mile and a half south to the base line and prepared for an observation, but the cloudy weather prevented me from getting one until Sunday morning.

In order to protect the horses from the bull-dog flies, we were obliged to build a stable here and stuff the spaces between the logs with moss so as to completely darken the interior, and feed was cut for them. While in this camp, I lost two more horses. The food, which was chiefly water-grass, brought on a lung fever upon which medicine seemed to have no effect.

From what I had seen of the country and the account which I had got of it farther west, together with the wet season and the condition of my transport, I concluded that it would be impossible to carry out my original instructions. I, therefore, telegraphed you to that effect, and suggested that I should work east from this point and survey the township outlines to the correction lines north and south of the base line. Having received a reply that my suggestion had been approved, I commenced the survey of the east boundary of township 45, range 8, on the 1st of July, and finished the line across townships 45 and 46 on the 13th.

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I started the east boundary of township 44 on Tuesday the 16th, but by Saturday, had only run to Red Deer river, a distance of not quite four miles.

Next evening, Mr. Hanson, a deputy surveyor of Fredericton, New Brunswick, joined the party as my assistant, but left the following Wednesday without even going into the field.

On the 22nd, I took a flying camp to Red Deer river intending to produce the line across township 43, but the weather turned very wet, our stock of provisions was getting low, and the horses were in such poor condition that I did not produce the line south of township 44, but returned to the main camp on the 25th. The two following days were so wet, we could not make any progress, but on Sunday morning, the weather cleared up, and I started east, but after travelling a mile and a half, one team gave out and I had to camp. The next day, I sent three men east to Greenwood for provisions, and one team made two and a half miles more with its load. The following evening, we arrived at our old camp ground at the east side of range 7, with three horses. The men who had gone for supplies also joined the party and here we got all the horses once more together.

There was an abundance of good feed convenient to the camp and as I had secured a supply of oats and bran from Greenwood, I was in hopes that the sick horses would soon recover, but the lung fever had made too great progress and two more horses died within a few days, making five in all during the season.

I started the east boundary of township 44, range 7, on the 30th, and completed it across township 43 on August 11. On the 12th, I moved a short distance south and east of my first camp and as I found it would not be a difficult matter to open a wagon trail from there to a short distance south of the base line, I had a trail cut while some supplies were being brought up with the pack horse and the wagons brought east from the last camp. In a day and a half, I had the trail made and started the survey of the east boundary of township 44, range 6. On the 19th, having got all the camp equipage once more together, I moved camp to the end of the trail and completed the line across township 43, on the 28th.

On the 30th, I moved camp east to my next line, and sent two men along the base line to locate the corner. They then walked north through the woods to camp and arrived at dark as we were pitching the tents.

Next night, I took an observation, and by September 28 I completed the survey of the east boundary of townships 45 and 46, range 5, and the east boundary of townships 44 and 43 of the same range. There was a heavy fall of snow on September 22, which melted in a few days, and this together with very heavy rains made the swamps and sloughs worse than they had been at any time during the season. After this, the weather cleared up, and we only lost half a day from rain during the remainder of the season.

On the 30th, I sent a team east to my next line with a load, and next day, hired a team from the railroad contractor and moved everything up. As the weather was getting cold, I had to build a stable for the horses.

Having taken an observation, I started the east boundary of township 45, range 4, on October 3, and ran north to the correction line, then south across townships 43 and 44, and finished on the 28th. On the 30th, I moved east, and as the tote road was upwards of two miles south of the base line, and three and a half miles south of the right of way it was difficult even to approximate the position of my next line. However, I camped as near to the estimated point as I could get water, and it afterwards proved to be about twenty-five chains east of the line. The weather was cloudy and likely to continue so. I did not, therefore, lose any time waiting for an observation, as I could get a very long sight up the base line.

I started the east boundary of township 44, range 3, on Thursday, October 30. I ran south to Red Deer river with the intention of surveying the south line before the stream should become so clogged with ice as to make it dangerous for a man to handle a raft in keeping the camp supplied with provisions. By Saturday evening, I reached

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one-half mile south of the river. That night and the following night, there was very hard frost. On Monday morning, the river was so full of running ice that it was not only difficult but unsafe to use the raft. I, therefore, had the instruments, &c., which had been left on the south side of the river, brought over and started north across township 45. The severe frost of the past two nights had sealed up the sloughs so that there was no more wading. I finished the line across township 46 on Thursday, November 4, and packed back to camp the following day. On Saturday, I resumed the survey of the line south of the river, which was still open. The country along the line south of the river has all been burned over, so together with the fallen timber and a dense second growth, the survey was necessarily very slow. The weather had now set in cold, and as the party was not provided with winter clothing, I determined to cease operations as soon as I completed the line across township 44. I finished this on Wednesday the 20th and next day moved to Erwood, where I paid off all the men I had not to return farther east. I had to remain here for a train until the following Monday, when I went to Swan river. There, I disposed of the horses by auction and took the next train on Thursday to Dauphin. Owing to this being a civic holiday and because of poor train connections, I did not reach Winnipeg until late on Saturday evening. I left the following Tuesday and arrived home on December 7, after an absence of seven months and nine days.

The line of the Canadian Northern railway, which is cleared and ready for grading, is at a distance varying from one mile to a mile and a half north of the base line, and when I left, the grading was nearly completed to within a mile of the west side of range 5.

Nearly the whole section in which I was surveying is heavily timbered with the usual varieties of timber indigenous to the western country, poplar and balsam of gilead with a dense undergrowth of willow, alder and hazel prevailing. I ran through several groves of fine spruce; the trees are the tallest in proportion to their diameter I have ever seen. There were also bluffs of small tamarack and spruce in most of the sloughs and muskegs, but wherever the land was very wet, the timber was so small as to be of no commercial value. In a few places, I also found white birch, and jackpine on the sand ridges. Some portions were burned over a number of years ago and the timber killed; it is now nearly all down, and a dense undergrowth of the same varieties growing up. It was slow work cutting out the line in these places. The presence of so much fallen timber will no doubt before long be the cause of destructive forest fires.

The sloughs are numerous, but none are very large. Hay fit for horse or cattle feed is scarce; there is nothing but spear grass except where there is a running stream in the slough.

The country is practically level, with a slight slope to the east, as indicated by the streams which flow in that direction. The line of railway is the dividing line between two varieties of land; that to the south of the line is nearly all first class, and although the sloughs are numerous, they are nearly all capable of being drained. There are none to speak of that can properly be termed muskegs. The country north of the railway is more broken with irreclaimable muskegs and sandy and stony jackpine ridges.

The Red Deer, the largest river in that section of the country, is a fine stream of good water, well stocked nearly all summer with jackfish and goldeyes. It has an average width of between two and three chains and when I saw it, except at the rapids, was from four to six feet deep with an average speed of about two miles per hour.

The Etoimami, another large stream, enters the Red Deer from the south in range 3 but, as it does not run near any of my lines, I did not see it.

On the north side of the Red Deer is the Fir flowing into it in range 4 and the Greenwood in range 5. Each averages over a chain in width and from two to four feet deep; the water in both is swift and good. Prairie river enters Red Deer river in range 6 and is about one-fourth the size of either of the other two streams; its water is also good.

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The country being so level, the Red Deer is, of course a very crooked stream, hence a large area of land may be drained into it. Its bed and the beds of the other rivers and creeks I saw, lie so much below the level of the surrounding country that it will be an easy matter to construct trunk drains.

I do not think there is any likelihood of many settlers going into this section of the country for some time, as it is so heavily timbered, and feed is too scarce to admit of ranching.

I have the honour to be, sir,
Your obedient servant,

JAMES DICKSON, D.L.S.

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APPENDIX No. 12 TO THE REPORT OF THE SURVEYOR GENERAL.

ABSTRACT OF REPORT OF C. C. DUBERGER, D.L.S.

SURVEYS IN SASKATCHEWAN.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—Your instructions were received on June 20, 1901. On the 26th, I left home for Prince Albert, where I arrived on July 1. Difficulty in obtaining supplies delayed me at Prince Albert until July 9, when I left for my field of labour with seven horses, two wagons, and a buckboard.

From Prince Albert to the crossing of the South Saskatchewan river, the road was fairly good; after passing the latter point, it was very bad. From a point about three miles west of Leather river, the ground was so soft that I found it necessary for the remainder of the journey to move up half of my outfit at a time. The delay in transportation was made greater by frequent heavy rains, which further softened the soil and made it totally unfit for the passage of loaded wagons. I regretted that I had no carts, as I believe carts are much better adapted for transportation over such roads. From July 21 to 27, two days were lost on account of rain; one day was occupied in building a bridge, and my horses were so exhausted that in these six days, we were able to move a distance of only nine miles.

After reaching Doghide creek in the eastern part of range 15, we entered a bush of tall, green poplar, where feed for horses was poor and scarce. Progress was so slow and the prospect so discouraging that I decided to stop travelling with the whole outfit and to go instead with a flying camp to ascertain if it were possible at that time to complete the survey of the 12th base line in ranges 9, 10 and 11. I left my main camp on the 12th base line about the centre of range 14, and taking with me three pack horses, reached the north-east corner of township 44, range 12, on August 4. The next day, I followed the portion of the base line surveyed in range 11, and reached a large and dangerous muskeg stretching easterly. This exploration convinced me that the survey of the 12th base line in ranges 11 and 10 was impossible during the summer. Accordingly, I decided to telegraph you for further instructions. Leaving my main camp in range 14, I reached Prince Albert on August 9, and on the 13th, I received instructions to survey certain outlines in townships 43 and 44, ranges 14 and 15.

I returned to camp on August 15, and next day, moved to the north-east corner of township 44, range 14. The following day was occupied in organizing for work, and on the 19th, I began the survey of the meridian east of townships 44 and 43. One and one-half miles of this line had already been run, and on September 2, I completed its survey to the 11th correction line.

For the first six and one-half miles southerly from the base line, this meridian runs through a slightly undulating country, covered with green poplar, windfall and thick underbrush. The soil is second class. In section 36, township 43, the line crosses a muskeg half a mile wide, extending easterly and westerly. For the remainder of the distance to the correction line, it runs over an undulating surface covered by green poplar, willow and burnt timber, with occasional spots of rough prairie and windfall.

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On September 4, I started with the whole outfit for the north-east corner of township 43, range 15, in order to survey the eastern boundary of this township. The soft condition of the ground and the difficulties of roadmaking, delayed my progress so much that on September 14, I was yet two miles north of the corner I had hoped to reach. I explored some distance ahead and found that at about half a mile south of the corner there was a large muskeg through which the line could not be run. As it was impossible to survey this boundary at the time, I returned to the 12th base line.

My horses were in poor condition and I was compelled to give them a rest of three days while I went to Melfort to engage a man to purchase oats. After my return to camp, heavy falls of rain and snow prevented my moving, and it was only on September 27 that I began my journey to the north-east corner of township 40, range 14, from which point I expected to run the meridian north.

I was compelled to travel by a very indirect road, and I was hampered by the usual difficulties of transportation in such a country.

On October 7, I reached a point near the north-east corner of township 41, range 14. Here I built a raft in order to cross the river to reach my starting point. We worked at this in cold water up to the knees. On the 10th, I crossed the river with a flying camp and for two days, I travelled through marshes, muskegs, bogs and ice water, making in that time a distance of about five and one-half miles southerly. I suffered so much from rheumatism, which I believe was brought on by these hardships, that I was compelled to return to camp.

On October 14, I tried to reach the north-east corner of township 40, range 15, but I again failed. I could not dispense any longer with medical assistance, and I was sorry to be obliged to give up the survey for this season.

I reached Prince Albert on October 23; my outfit was sold there by auction on the 28th, and I reached home on November 4.

APPENDIX No. 13 TO THE REPORT OF THE SURVEYOR-GENERAL.

REPORT OF G. J. LONERGAN, D.L.S.

SURVEYS IN SOUTHERN ALBERTA.

BUCKINGHAM, QUE., April 29, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to submit the following report on the surveys made by me during the past season in southern Alberta under instructions dated April 13, 1901.

Upon the receipt of my instructions, I left Buckingham on May 1 for Calgary, and on my arrival there made arrangements for the organization of my party. I then left for Lethbridge and arrived there on May 7 where I met Mr. C. McCarthy who had wintered Mr. Woods' horses. I had been instructed to take these horses, but four of the best strayed away a few days previously and could not be found. This necessitated my purchasing two others. I notified the captains of the 'round ups' of the loss, and was successful in getting three of them on May 30.

I decided to first subdivide township 7, range 26, west of the 4th meridian, as it is situated on the ridge between the Waterton and Oldman rivers, and I was afraid the sloughs might dry up later in the season. There is one settler in this township who has a horse ranch, and farms to some extent. The township consists of undulating and rolling prairie; the soil is chiefly clay and sandy loam, and is well watered with two large lakes and sloughs and springs. A large number of stock roam over this section of the country.

Camp was next moved to township 2, range 22, west of the 4th meridian. The north two miles of this township had been subdivided; I completed the remainder of the subdivision. This township is situated on the Milk river ridge and consists of high rolling prairie land. The soil is clay and black or sandy loam and has a luxuriant growth of good grass, in fact, hay might be cut in any part of the township. Coal is found on section 4. The township is well watered and especially adapted to stock-raising. The McIntyre ranch, one of the largest ranches in southern Alberta, is located on the north boundary.

We next moved to township 1, range 21, and subdivided the whole township. Ten settlers who had moved in from the United States in the spring were living in tents, herding their stock, while waiting for the survey to be made, in order to locate and build fences. This township is well watered by a large lake in the northeast part, the Milk river through section 31, and many sloughs and springs. The township is high, rolling prairie; the soil is mostly sandy, with dry sub-soil. I traversed the Milk river from section 1 to the east boundary of section 13, township 2, range 22.

Camp was then moved to township 1, range 28, west of the 4th meridian. This township is very mountainous; the only land of much value is about fifteen hundred acres in the centre of the township, but it is not open for entry as it is within the boundaries of the Blood Indian timber reserve. The Belly river passes through the centre of the township and is fed by numerous creeks that rise in the mountains.

Township 2, range 29, west of the 4th meridian, was next in order. We pitched camp on the banks of the Waterton river and proceeded to run the east boundary of township 2, range 30, and the north boundary of township 2, range 29, and subdivided

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thirteen miles of the township. This left open for entry all serviceable land. In this township, there are three settlers who moved from Montana five years ago. They have good ranches and are greatly pleased with the country.

A line was then run in the valley of the Blakiston brook in township 2, range 30. This township is all mountainous excepting the brook valley, which is about one-half mile wide, and gravelly soil; spruce and jackpine grow in large quantities on the northern slopes of the hills, while poplar and cotton-wood are found along the banks of the brook.

The southwest part of township 5, range 1, west of the 5th meridian, was then subdivided. The township is very rough and mountainous, only portions of the valleys being suitable for ranching and hay meadows, but it contains coal in large quantities. One seam on section 10 supplies the town of Pincher Creek and surrounding country. The coal is of a bituminous nature, being good coking and domestic fuel.

On the first of October, we moved to township 10, range 1, west of the 5th meridian, to subdivide the west half. It is level prairie, and well watered by Callum, Sharples, Heath and Meadow creeks, also by the Oldman river. The soil is sandy loam. Good crops are produced especially by irrigating. It is also a first class stock country. The east half of the township is well timbered.

The Walrond ranche, the largest in this part of Alberta, has its headquarters here; it covers most of the township, and has over eleven thousand head of stock on this range.

About the middle of November, I received instructions to inspect contract surveys in Assiniboia, and was, therefore, obliged to leave the remainder of my work unfinished.

During the season I travelled over seven hundred and forty miles and came into contact with many settlers some of whom had just come into the country and others who had been there for some time; without any exception they appeared to be doing well and were satisfied with their prospects.

I also noted that mixed farming was becoming more general throughout the country, the Cardston and Pincher Creek districts especially raising number one wheat. I also remarked that fall wheat was very successfully grown in that part of southern Alberta watered by irrigation.

Before closing this report, I take great pleasure in thanking you for the able assistants you appointed on my party, viz.: Mr. Thos. Shanks for the first part of the season, and Mr. G. H. Watt for the remainder, who under all the trying circumstances incident to survey parties, were exceedingly helpful.

I have the honour to be, sir,
Your obedient servant,

G. J. LONERGAN, D.L.S.

APPENDIX No. 14 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF JOHN J. DALTON, D.T.S.

SURVEYS NEAR YORKTON.

YORKTON, ASSINIBOIA, April 30, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to submit my report of surveys made under your instructions of April 15, 1901.

I received the instructions on April 19, and on the same day I took the train for Winnipeg, where I arrived on the 22nd, and was delayed two days, during which time I replied to forty-eight applicants for positions on surveys, besides transacting much other business necessary to the operations of the survey; I then left for Yorkton, where I arrived on the 24th.

Owing to the unusual quantity of water in the sloughs and hay land in the vicinity of Yorkton, I thought it wiser to leave the surveys over these until the end of the season, thus avoiding traverse surveys where hay had in the meantime been cut.

Having completed all the preparations and the assembling of my party, I proceeded on May 6 to the north-east corner of township 32, range 31, west of principal meridian by way of Fort Pelly. On May 10 and 11, I ran the east boundary of this township three and one-quarter miles south, from which I concluded that it would be more economical to do all the work possible from the north boundary of these townships before moving camp farther south, as fodder was plentiful in the north and very scarce to the south. Therefore, I ran all the meridians in ranges 30 and 31 from the ninth base line two and one-half to four miles south before completing any other part of the work, which gave me the opportunity to acquire a knowledge by which to move camp readily through an almost impenetrable country.

I re-ran the east boundary of township 32, range 30, which had been burnt over and then overgrown with dense thickets of poplar. I was fortunate in finding all the original corner posts on this line. Thence moving camp along the trail that runs east and west through these townships, I produced all the meridians south from four to six miles until I came to the east boundary of range 31, from which I moved camp around to the north boundary of township 31, range 31; from this camp, I ran all the lines within a practicable distance of it, no matter in which township.

In producing the east boundary of township 31, range 31, to the correction line, I passed the correction line about ten chains without discovering it. As this part of the country had been brule at or about the time of the survey, and has since become an almost impenetrable thicket, I thought it wiser not to attempt to locate the township corner of the old survey in this vicinity from this line, but produce the meridian one mile west in hopes of finding the correction line in older timber, and succeeded thus in locating the south boundary of my survey without a moment's loss of time. After completing these three townships, I proceeded to townships 32, ranges 1 and 2, west of 2nd meridian, and destroyed all the marks of the old system of survey on the north side of the correction line. I then completed the survey of the Assiniboine river across ranges 1 and 2, west of 2nd meridian. I then moved westward and destroyed

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all the marks of the old system of survey north of the 8th correction line in ranges 3 and 4 on my way to townships 29 and 30, range 6, west of 2nd meridian, where I corrected several lines for closing errors. From thence, I proceeded to township 25, range 5, west of 2nd meridian, and put an iron post and pits at the north-east angle of section 24, the other corners having their original marks. I then moved into township 25, range 4, where I renewed many of the corner marks and resurveyed Lowes lake; from this I entered township 24, range 4, but owing to errors in the original survey, I left this township unfinished waiting further advice. From this, I went to township 23, range 4, and resurveyed Crescent lake and subdivided much hay land which had been under water. I treated township 23, range 3, in the same manner. Then I went into township 24, range 2. The lake on the south boundary of this township seemed to be unchanged, with a stream running out of it, and the water up to the edge of the timber. I, therefore, thought it unnecessary to survey it. I then surveyed the lakes in township 24, ranges 1 and 2, and completed the survey of township 25, range 1, all west of the 2nd meridian. In passing through township 26, range 2, I could not find water by which to camp. I went on to Yorkton and completed the business of the season and returned home.

I have the honour to be, sir,
Your obedient servant,

JOHN J. DALTON, D.T.S.

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APPENDIX No. 15 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF J. A. BELLEAU, D.L.S.

SURVEYS IN THE CARROT RIVER DISTRICT.

OTTAWA, June 1, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to submit the following report on my operations in the field during the past season.

Your instructions dated April 13, 1901, were: first, to survey ranges 11, 10 and 9, on the 12th base line, and after, to survey meridian outlines in the Carrot river district.

After getting the necessary information in the office, I left Ottawa on April 25 for Prince Albert, where I arrived on the night of the 29th. I was delayed in Prince Albert a few days more than I expected on account of the men, whom I had to engage, living quite a distance from there. I, therefore, had to notify them to meet me in the town.

My party being all completed and the outfit bought, I started for Melfort intending to make that place my headquarters for the work south of the Carrot river. I was informed by parties, who should have known better, that I could travel with wagons along the 12th base line as far as the Crooked river. The great amount of rain that fell during May put the roads in such a state that on our arrival in Melfort, after six days of hard work, some of the horses began to show signs of great weakness.

Mr. Beatty, a resident of Melfort, to whom I am very much obliged for his kindness, gave us all the information we required before proceeding farther with our loads. We stored a great part of our provisions in his warehouse, as he assured us that we could not reach Crooked river with our wagons. He was perfectly right, as we had not reached Willow creek before our horses were played out. After travelling with half loads, making very poor progress, having to bridge creeks, rivers, and cross a great many swamps and sloughs, we reached the Canadian northern railway stores, about five miles west of Crooked river, where we had to abandon our wagons in storage.

By the time we had built *travails*, and fixed up the pack saddles, the horses had improved a little and finally, on June 12, we reached the east end of range 12, where we were to begin our work on the 12th base line, with one horse less and three hardly able to walk or to carry any load.

The next day, a storm began, which lasted four days, raining day and night. That decided our fate. The rivers began to rise, and the large muskegs, which were only a few miles east of us, had three and four feet of water in them, making the survey impossible and most dangerous for men and horses.

On the 16th, I observed for azimuth at the first opportunity, and started to survey range 11. After running about two and one-half miles, partly in the first large muskeg, we tried to force our way through, but with no success, the bottom of the sloughs and the surrounding country being completely saturated. I reported the fact immediately to you, and after two days, the men whom I sent after the mail, came back to camp and reported the impossibility of crossing the rivers, thus delaying nearly a fortnight the sending of my report. I decided then to abandon that part of the base, and

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moved westward to start the meridians, the first one at Horse creek. The horses were so weak and lame, having bruised their feet in passing over the corduroy roads, that only four could give us any help. We reached Horse creek on June 29. I observed for azimuth on Polaris on Sunday night, and started the meridian between ranges 13 and 14, running north on July 2.

At the time we started to work on this meridian, we had only five horses out of eight that were of any use to move camp. I sent immediately to Melfort for more but could get only one. I was unable to send to Prince Albert for any, being three short already, so we were reduced to six to move camp, a great drawback, as we had to make it with half loads. The flies of all kinds were so bad, and the horses so weak, that in a few weeks, two of the best of them died near the smudge.

Not until September 3 did we finish the meridians south of the Carrot river. We moved camp to Melfort, en route for Fort à la Corne, where we stayed a few days waiting for provisions, which had been delayed on account of bad roads. We then proceeded easterly with the whole outfit, having been able to buy two ponies from the Indians, and made a cache in a safe place near range 19, about seven miles from Fort à la Corne.

For the first few days, the work went on very well, but when we came to ford sloughs and swamps up to the waist, the water being very cold, six men left me. I immediately sent for Indians from the fort. I was glad to see them come the next day, and relieve me from the awkward position in which I was placed. I must, here, give great credit to them for their courage and their willingness to do anything they were told, as it was not pleasant wading these swamps, some of them two or three miles wide, for over six weeks in ice cold water.

On November 3, a strong breeze came from the north and the thermometer fell to 10 degrees below zero. Fortunately, this temperature continued, freezing all the lakes and most of the small swamps. The few inches of snow that fell on the 7th and 8th, enabled us to use the flat sleds I had rented from Mr. Angus McLean of the fort. Then the progress of the work was much more satisfactory, and the whole 76 miles of meridians and jogs were completed on December 16.

The first two weeks of December were much colder with occasional light snowfalls, the thermometer registering from 3 to 25 degrees below zero with strong north-west winds. It is obvious that frozen ears, faces, and feet, were of frequent occurrence.

Having no word from you other than your letter of November 14, in reply to mine of November 3, in which you ask me to finish the 12th base line, if no other surveyor had been sent to do this work, and as the meridians I had been allotted to survey were completed, the only thing I could do was to proceed to Prince Albert as soon as possible for new instructions. I had to go there anyway in order to form a new party, as not one man would stay any later than Christmas. We reached Prince Albert on the evening of December 20, where I received your letter dated the 12th, stating that a telegram had been sent that day advising me to make arrangements to continue work during the winter.

I may say that I never received that telegram, and on asking the station agent why he had not forwarded it, his answer was that he had given it to some person who was going to Fort à la Corne. In coming from our last camp on the meridian between ranges 13 and 14, I bruised my left foot and had rheumatic pains, so that by the time we reached the fort, I was completely lame. On reaching Prince Albert, seeing that the pain was getting worse, I telegraphed you that I could not undertake any more work for some time. I regret very much this occurrence as I would prefer working in winter in that kind of country. Having made arrangements for the storage of outfit, I left Prince Albert on January 1, and arrived in Ottawa on the 4th.

Description of Country.

12th base line—Townships 44 and 45.—These townships are mostly covered with a thick growth of large poplar and heavy underbrush. Some large spruce swamps and large muskegs and hay sloughs are met with. These townships are unfit for settlement.

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Township 45, range 14.—This township is undulating and level, thickly timbered on the east half with poplar and birch, from six to twenty inches in diameter, with a heavy underbrush. Occasional willows and hay swamps are met with. The Canadian Northern railway location line crosses this township in an easterly direction, and was intersected near the north boundary of section 1. Horse creek and Miners' creek, which are from ten to fifteen links wide, flow through section 1. The west half of this township is mostly covered with a second growth of poplar and willows, the larger timber having been swept by fire. This township may be rated first and second class. The soil is black loam with a subsoil of clay and sand.

Township 46, range 14.—This township is level and undulating, mostly covered with green and burned scrub, with occasional small bluffs of young poplar. There is a good sized bluff of poplar from six to eighteen inches in diameter in the south-east corner of the township. The fires have destroyed all the large timber. Small hay sloughs are met with here and there. The soil is black loam with a subsoil of clay, except in the sloughs where the subsoil is gumbo. This township is fairly well adapted for farming. It may be rated first and second class.

Township 45, range 15.—This township is mostly level with the exception of a few small coulees. The only coulee of importance is the one in which the Doghide creek flows; it varies from ten to forty feet in depth. The Canadian Northern railway location line crosses this township from east to west about thirty chains north of the base line. The country has all been swept by fire and now only a second growth of small poplar and willows may be seen. The north portion of the township is wet and many small willow swamps are met with. The soil is first class, making this portion of the country very well adapted for farming purposes. A large creek 'Doghide creek,' almost a river, flows through this township in a north-westerly direction. Its width is from 20 to 70 links. The water is fresh, running on a sand and gravel bed. Another large creek, 'Presbyterian creek,' flows through the west half of this township. The water is fresh.

Township 46, range 15.—The east half of this township is cut up by coulees, the most important being that of 'Presbyterian creek.' As far north as the third mile, the country is mostly level with a second growth of small poplar and scrub. Sections 13 and 24 are heavy, rolling country, Presbyterian creek crossing them several times. The northern portion of this township is wet and swampy. The western half is also very much broken by the valley of 'Leather river,' which enters this township near the north-east corner of section 7, and flows in a north-easterly direction. Nearly all of this township was overrun by fires and now only small burnt scrub and a few clumps of small poplar can be seen. The soil is first class, making this township fairly good for farming purposes.

Township 45, range 16.—This township is mostly level with slight undulations, with small scattered bluffs of young poplar and willows. The fires have swept all this part of the country destroying all the heavy bush, leaving a great many logs on the ground, and also dry timber standing.

The Leather river flowing north crosses at about the centre of the township. Hanging Hide river also flows through this township entering by the north-east quarter of section 12, and empties its waters into the Leather river a few miles west of its intersection with this meridian. The soil is of very good quality. This township is very well adapted for immediate settlement. The location line of the Canadian Northern railway was intersected near the centre of section 1.

Township 46, range 16.—This township is a little more undulating than the former, but the slopes are very gradual and easy. The fires here also have burned the greater part of the large timber leaving a few scattered bluffs of good sized poplar. The second growth of poplar and willows is much thicker and the fallen dry timber more plentiful than in township 45. Good hay meadows and large prairie spots are met with. Leather river flows out of this township near the north-east corner of section 12. The soil is first and second class.

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Township 48, range 19.—The north half of this township is high, rolling ground, and timbered with jackpine. The southern portion is swampy; large boggy marshes cross this township from east to west and render it useless for farming purposes.

Township 47, range 19.—This township is all brûlé with small patches of dry and green willows and scrub. Hay sloughs are numerous, but were all very wet at the time of the survey. The Carrot river crosses the township from west to east. Another small stream is met with in the north part of section 12. This township would be well suited for ranching purposes in dry seasons. The soil is black loam with subsoil of clay.

Township 48, range 18.—The northern portion of this township is an old brûlé with much dry timber standing and fallen. There are some small scattered bluffs of green poplar with this scrub. Fort Cumberland trail passes through section 25, and runs in a northeasterly direction. The soil is generally good, the subsoil being clay and sand. The southern portion is very wet and much cut up by spruce, muskegs, and hay marshes. The country is level. There are a few small lakes with fresh water. An Indian pack trail leading to Fort à la Corne, passes through section 1.

This township is mostly unfit for farming, but may be good for ranching in dry seasons.

Township 47, range 18.—The surface of this township is almost covered with numerous small lakes and sloughs, and is of no value for agricultural purposes. The fire has swept all the large timber between the lakes, and a thick second growth of poplar, alder, and scrub, is seen.

The Carrot river crosses section 12, flowing in a north-easterly direction. The north slope of the valley is nearly half a mile long and consequently easy; the south one is more steep and broken.

The soil between the lakes is first class, but there is so little dry land that it cannot be recommended for farming purposes.

Township 48, range 17.—This township is level and undulating, with scattered bluffs of poplar and jackpine and some spruce and tamarac muskegs. Fires have destroyed nearly all the large timber, a few bluffs of good sized spruce and tamarac in the muskegs only have escaped. A great deal of dried timber, standing or fallen, may be seen in every direction. A thick second growth of poplar and willows in large bluffs is met with here and there. Sandhill creek flows through a beautiful valley about half a mile wide and from forty to seventy-five feet deep. This creek crosses the township in an easterly direction and empties into Carrot river.

Large hay sloughs are numerous, and in dry seasons would make this part of the country very suitable for ranching. The soil is good, and may be rated first and second class.

Township 47, range 17.—This township is rolling and undulating with a thick second growth of poplar, willow, and alder. Some spruce and poplar bluffs are to be seen here and there. Fires have devastated nearly all this part of the country, which at one time must have been an immense forest. A great quantity of large spruce and poplar trunks is still standing and a large number have fallen down in heaps. Numerous small lakes and hay swamps are met with, covering a considerable portion of this township; it is, therefore, of very little use for farming purposes, but would be well adapted for ranching in drier seasons. The soil is good and may be rated first and second class. Carrot river flows through a deep ravine with a valley about three-quarters of a mile wide. This stream crosses the township through the centre, and flows in an easterly direction.

Township 48, range 16.—This township is rolling and undulating as far south as the valley of Sandhill creek; the southern half, being higher land and slightly undulating, is better adapted for farming purposes. Fires have swept nearly all the timber, leaving only a few dry trunks of poplar and spruce. The fallen timber is scarce and in many places small scrub is met with. The second growth in the southern portion of this township is much thicker, and alder bluffs are numerous. Sandhill creek flows

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through a deep, wide valley with very gradual slopes, and crosses the township through the centre in an easterly direction. This township is well adapted for farming and grazing purposes, having good hay sloughs, and being well supplied with good water. The soil is first and second class.

Township 47, range 16.—This township is undulating and in some places level. The country has been devastated by large fires some ten years ago, and the only timber left now is dry and fallen in heaps. The second growth is mostly of poplar and alder in bluffs, with a thick undergrowth of willow. The Carrot river which crosses near the centre of the township, flows through a wide valley nearly one hundred feet deep and broken by landslides. On both sides of the river, the country is fairly open and is very well adapted for farming purposes, being well watered by a few good creeks, and the soil is of very good quality, being a rich black loam with a deep subsoil of clay loam.

Township 48, range 15.—The northern portion of this township is very much broken by large boggy marshes and sloughs with thick willows and windfalls. There are many creeks of good size crossing section 25, all running in an easterly direction. The Carrot river was intersected in the south half of section 24, flowing easterly. The river has no valley there, only steep banks about fifteen feet high. There is an old pack trail crossing the south half of section 24 which branches to other trails and leads to Fort à la Corne. This portion of the township is useless for farming but may be good for ranching purposes in dry seasons. The southern portion is also very much broken by sloughs and small swamps, but the land is of better quality. There is a large creek twelve feet wide in section 12 which flows easterly in a wide valley. The second growth of poplar, willow and alder, is very thick. The surface is undulating. As a whole, this township is unfit for farming purposes.

Township 47, range 15.—This township is also undulating and very much cut up by numerous small hay sloughs and ponds. There is an immense quantity of small dead timber, standing and fallen. The second growth is very thick and is composed of poplar and willow.

Leather river crosses the south half of section 1 and flows in a north-easterly direction through a valley over three-quarters of a mile wide. The river is sixty-five links wide at that place and is as large as the Carrot. The current is rapid in many places. According to the Indians, this river is a favourite resort of beaver, otter and mink. Except in a few places, this township is unfit for farming purposes.

Township 48, range 14.—This township, with the exception of a few open sloughs and patches of scrubby prairie, is covered with a very thick growth of poplar and gray willows, some of the poplar averaging 8 inches in diameter. It is level as far as Carrot river. Sections 12 and 1 are very much broken by the valleys of Carrot and Leather rivers which unite about six chains east of the meridian. The soil is black loam only a few inches deep, with a subsoil of clay. This township may be classed as first and second class.

Township 47, range 14.—This township is mostly taken up by hay sloughs and is covered with a very thick growth of young poplar and willows. The surface is level and undulating. There is a good deal of fallen timber from one to five inches in diameter. The soil is black loam with a subsoil of sand and clay. This township may be rated second class. Two creeks cross section 1 and flow westerly. It is unfit for farming purposes.

I have the honour to be, sir

Your obedient servant,

J. A. BELLEAU, D.L.S.

APPENDIX No. 16 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF A. C. TALBOT, D.L.S.

SURVEYS IN THE CARROT RIVER SECTION.

OTTAWA, May 10, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to submit the following report of my field operations in the Carrot river locality during last winter.

In pursuance of your instructions dated January 2, I left Ottawa on the 8th, and, after having spent two days in Winnipeg on business, I arrived at Prince Albert on the 13th: I was delayed here until the 29th waiting the arrival of my camp equipage from Edmonton, although I had written from Ottawa on January 2 to have it sent to Prince Albert and afterwards telegraphed twice from Prince Albert. While waiting for the outfit which I expected by every train, I hired the men and bought the supplies. I left Prince Albert on the 30th and reached Crooked river on February 4.

I first checked the length of the 12th base in ranges 12 and 13, and then surveyed the east outlines of townships 45 and 46, range 13. I also completed the survey of the 12th base across ranges 9 and 10 and part of range 11, and then surveyed the east outline of township 45 in ranges 10 and 11.

The country along the 12th base line, in the east half of range 11 and the west half of range 10, is a large muskeg partly covered with black spruce and tamarac; the remainder of range 10 and the whole of range 9 is mostly higher ground, rolling in range 10, but rough in range 9 and broken in many places with small ponds, sloughs and muskegs. The soil in general is a bluish clay covered with a thin layer of black loam fairly good for farming purposes and may be ranked as second class. The soil along the meridians surveyed north of the base is of the same quality, with numerous chains of small sloughs, muskegs and spruce swamps, running east and west in nearly parallel lines. The whole of this country where the ground is at all high is covered with a dense growth of poplar, balm of gilead, spruce, tamarack, large gray willows, and heavy underbrush. There is sufficient spruce and tamarack of good size and quality for railway construction purposes and for the settlers. The line of the Canadian Northern railway, which is from one to two miles north of the base line, was open during the winter as far west as the meridian between ranges 12 and 13.

The temperature last winter was much milder than usual, in fact a portion of the month of February was almost too mild, and I would have been obliged to stop survey operations earlier than anticipated had it not turned much colder during the first half of March. In the third week of March, the weather turned very mild again, the snow was disappearing rapidly, and I had been informed that water was beginning to show over the ice in the small rivers. I, therefore, concluded to quit work in order to reach Prince Albert before the winter roads broke up. I left the field on March 23 and arrived in Prince Albert on the 27th. There was very little snow on the roads especially

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between Doghide river and the crossing of the South Saskatchewan river. I discharged three men on my way to Prince Albert and seven more on the 28th. As the camp and transport outfit had got wet owing to rain during the last day we were in camp and while we were on the way to Prince Albert, I was obliged to keep two men for another day to see that everything was properly dried and then packed and stored away.

Fifty-seven days elapsed from the time I left Prince Albert to the date of my return; deducting Sundays and the time spent in travelling and moving camp, etc., twenty-nine days remained during which I surveyed forty miles.

I left Prince Albert on April 2 and arrived at Ottawa on the 5th.

I have the honour to be, sir,
Your obedient servant,

ALBERT CHAS. TALBOT, D.L.S.

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APPENDIX No. 17 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF P. R. A. BELANGER, D.L.S.

SURVEYS IN PASQUIA MOUNTAIN.

OTTAWA, March 12, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to submit the following general report on block outline surveys executed by me in the Saskatchewan district during last season.

On April 24 last, I left Ottawa for Fort à la Corne, the initial point of my operations. On the way, I stopped over at Winnipeg to take the train next day for Yorkton where I had stored my outfit, and arrived there on the 27th. At Yorkton, I found that my horses were in very poor condition and as at that time of the year there was no grass and the roads were very wet and heavy, it was impossible under the circumstances to undertake the trip overland to Fort à la Corne. I, therefore, sent the outfit by rail from Regina to Prince Albert, where it arrived safely on May 9, and after having spent a few days in the latter place completing my party, repairing the outfit and buying supplies, I proceeded to Fort à la Corne and reached there on the 16th.

On my arrival, I made arrangements with the Hudson's Bay Company for the storage of my supplies for the season, and next day commenced work by running the 13th base line easterly from the northeast corner of township 48, range 20, west of 2nd meridian, which is about three miles north of Fort à la Corne.

The 13th base line across range 19 runs through hilly and broken, burnt country with small poplar and jackpine scrub, interspersed with bluffs of poplar, jackpine and spruce four to ten inches in diameter. A wagon road leading to a saw-mill on Saskatchewan river, crosses the base line in section 33. Numerous small creeks or springs are intersected on section 34. The soil is third class.

In entering range 18, the country becomes very rough, hilly, and broken. A portion of the range is burnt and covered with poplar and jackpine scrub; the remainder is covered with jackpine varying in size from four to twelve inches in diameter. Small creeks cross in sections 33 and 34. The soil, as in range 19, is sandy and poor.

At range 17, the country changes suddenly to a gently rolling, burnt country with a light growth of scrub. The land improves somewhat, but is better adapted for grazing than farming purposes. It is watered by creeks on sections 31 and 33. A pack trail is intersected on section 34, which is used in winter in carrying the mails between Fort à la Corne and Cumberland House.

The base line in range 16 crosses a rolling, burnt country covered with dense willow and poplar scrub. The land is similar to that of range 17, with regard to its agricultural capabilities. Little Bridge creek meanders across sections 31, 32, and 33 in an easterly and south-easterly direction and empties into Carrot river. It is the first stream met with running southerly, which indicates that the height of land between the Saskatchewan and Carrot rivers was crossed in range 17.

Section 31 and the west half of section 32 in range 15 are in burnt country and densely covered with scrub; the remainder of the range is thickly covered with poplar from four to six inches in diameter, and thick willow. The country in the west half

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of this range is generally rolling, but the east half is nearly level and low and wet especially in sections 34 and 36 where there are large floating swamps. The land is unfit for farming purposes, but could be used for stock raising.

Continuing on the base line across range 14, section 31 is under water, being a floating swamp, after which the country is level and low, and covered with poplar bluffs alternating with large willow and hay swamps. The soil improves in quality, and, if of any use, is better adapted for ranching than farming purposes.

The description of range 14, except as to section 31, will apply to range 13, with the difference that the poplar bluffs are partly dry and partly green. The marshes are also more numerous and the country is wetter; however, the soil is good but requires drainage.

The low marshy country extends over the greater part of range 12, but improves on section 36, where it become dryer. It is also much more open in this range and a large quantity of good hay may be cut. There is a belt of good dry land near the Carrot river which flows a short distance south of the base line. I would, therefore, classify part of this range as very suitable for ranching or for mixed farming.

Across range 11, the line passes over a level, burnt country, mostly covered with small poplar two inches in diameter, and willow bush mixed with dry poplar and wind-fall. The land is first class, and is very suitable for mixed farming. Carrot river meanders easterly at a distance varying from half a mile to one mile south of the line, and then suddenly turning to the north crosses the line in the west part of section 36, after which it flows north-easterly. At this point, it varies in width from eighty links to one chain, and at the time of the survey, was from twelve to fifteen feet deep, and very muddy. A small bluff of large spruce was seen near the river on its east bank.

In range 10, the land is low and level, very wet in many places and mostly covered with large dry poplar and spruce mixed with a thick second growth, except in section 36 where there is a large bluff of green poplar. Hare-hill river (Wapos-wa-tee Sipi) is intersected on section 33, and Hare-hill creek crosses on section 32. Both streams average about the same width, and at the time of the survey carried about an equal volume of water which was muddy in the river but clear in the creek. The soil is very rich and may be rated as first and second class.

Through range 9, the base line runs over a gently rolling country, thickly covered with large poplar, scattered spruce, willow, alder and a few birch. Two streams averaging thirty links in width and from four to five feet in depth, are intersected on sections 31 and 32 respectively; they join together at a short distance north of the base line and form the stream known as Red Willow river. The soil is very rich, and with the exception of section 36, which is under water, may be rated first class.

Range 8 is in the Pasquia mountain, which begins on the west half of section 31 by a steep bank about thirty feet high forming a plateau, gently undulating and gradually ascending easterly. The land is very rich, but is covered with poplar, spruce, balsam, hazelbush, alder, willow and a few maples. The timber is generally good for building purposes only, but on sections 34 and 36, a good percentage of the spruce is suitable for lumbering. With the exception of section 31, streams are intersected on every section, flowing in a north-westerly direction. The most important are Big Valley creek on section 32, Papikwam river on section 33, and an unnamed river on section 34.

In range 7, the country is gently rolling and continues to ascend easterly over Pasquia mountain. It is also heavily timbered with large poplar, balm of gilead, spruce, balsam, birch, soft maple, and thick underbrush. A large percentage of the spruce is suitable for lumbering. Numerous streams with high banks are crossed on every section, except section 36; they rise in the hills and flow northerly. The most important are Crackling river in section 33 and its east branch on section 35. The soil is second class with the exception of section 31 which is first class. A pack trail, leading from Nut lake to Redearth Indian reserve, is intersected on section 34.

Through range 6, the country becomes heavy rolling and hilly and continues to ascend easterly by steps. It is generally timbered with spruce, birch, poplar and balm

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of ~~oil and~~ averaging from eight to fifteen inches in diameter. Section 36, however, differs from the above by being mossy land and poor soil covered with spruce, tamarack and a few jackpines. Creeks are crossed on every section except section 36; the most important is Summit creek, which rises on the summit of the mountain and runs across sections 35, 34 and 33, after which it flows north-westerly. The soil is generally second class.

In range 5, the country changes suddenly and becomes very poor; it is nothing but mossy land covered with scrubby spruce and scattered jackpine and broken by tamarack swamps. The height of land, or the top of the north-western slope of Pasquia mountain is passed on a level plateau covering the west half of section 32. By climbing a tree fifteen feet high on the east side of this plateau, a view of the country may be obtained for miles in all directions especially east and west. On sections 33 and 34, the first creek is crossed emptying southerly. It flows into Fir river, which is intersected on section 34. The latter is here a stream from thirty-five to fifty links wide with an average depth of two feet. It runs over a gravelly bed in a narrow valley with banks about one hundred feet high, and empties into Red Deer river.

The base line in range 4, across the two miles surveyed (sections 31 and 32), crosses a very poor country, consisting of mossy land broken by large tamarack muskegs alternating with small ridges covered with jackpine.

I sent a man ahead to explore for a camping place for my next move; he returned at the end of two days and reported that for ten miles east, which he had explored, and as far as he could see by climbing trees on the tops of hills, the country was nothing but burnt mossy land broken by boggy swamps and entirely without feed for horses. Under these circumstances, there was no alternative but to postpone the survey and resume it during the winter if required. I, therefore, temporarily closed the survey of the base line at the north-east corner of section 32, where I planted an iron post only to mark the corner. It is situated a few feet east of a river supposed to be Fir river which crosses the line in a north-westerly direction.

My next work consisted of the survey of the east boundary of ranges 5 and 9 between the twelfth and thirteenth base lines. The country passed over on these meridians may be described as follows:—

Township 48, range 5, is mossy land covered with scrubby black spruce alternating with tamarack swamps and burnt ridges overgrown with jackpine scrub. The soil is very poor and unfit for anything.

Township 47, range 5.—With the exception of part of section 1 which is first class soil and timbered with large poplar and spruce, this township is unfit for settlement; it is low level country covered with moss and scrubby black spruce broken by tamarack swamps. From the south-east corner of this township, I ran the jog east and found that the east boundary of township 46, which was allotted to me for survey, had recently been run by some other surveyor, but as the jog was not theoretically correct, and having reason to doubt the accuracy of the line, I did not establish the south-east corner of township 47 permanently, but only put an iron bar at 80 chains to mark the corner temporarily, leaving the correction to be made later on after verification; but as I did not return that way, this work was left unfinished.

On September 21, I proceeded to the twelfth base at range 9, following a pack trail along Fir river for a part of the way, and thence forced my way south-westerly through the bush from range 4 to range 9. This journey was accomplished under very unfavourable circumstances, the heavy snowstorms of September 19 and 22 turning to rain and snow on the 25th and 26th, rendered the low land and muskegs impassable, thus occasioning considerable delay. It was the 30th before I reached range 9, after a tiresome journey caused by diurnal duckings in mud and snow water and delays at the few places where feed could be found for the horses which were often over a day without anything to eat. Here, my work consisted of the survey of the east boundary of range 9 between the twelfth and thirteenth base lines.

In township 45, the meridian runs over a gently rolling country as far as the north half of section 36 where it turns hilly and broken. Pasquia mountain is met near the

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middle of the township, where it is marked by small ridges increasing gradually in height towards the north. The land is covered with large poplar, balm of gilead, and spruce, suitable for lumbering purposes, mixed with thick alder and willow. It is well watered by creeks which were crossed on every section. The soil is generally very good.

The right of way of the Canadian Northern railway was intersected in the southern part of section 13; it has been cut out and cleared of trees from the present terminus Erwood to about four miles west of this meridian. One of the company's stores named the '40 miles' store, where all kinds of supplies may be obtained, is situated on the right of way two miles west of the meridian.

The country across township 46 is hilly and broken at first and then turns from gently to heavily rolling. It is mostly covered with spruce suitable for lumbering, mixed with poplar, balm of gilead, birch, thick alder and willow. The soil is second class. Lakes of different sizes are found on sections 1 and 13; one on section 1 extends southerly into section 36 in township 45.

From the thirteenth base running south, the east boundary of range 9 strikes Pasquia mountain in section 36, and runs for the whole of township 48 over a rolling country gently ascending southerly, and heavily timbered with large poplar, balm of gilead, spruce, hazel, alder, and willow.

The same character of country is also observed over the north half of township 47, but the south half is nearly level and is timbered with scrubby spruce, tamarac, and balm of gilead.

The soil is first class in township 48, and may be generally rated as second class in township 47. Creeks are found on nearly every section of both townships.

On October 29, in compliance with your instructions dated September 26, I proceeded to my new field of operations in townships 41, 42 and 43, ranges 7 and 8. On the way, I passed by '40 miles' store where I secured supplies for the remainder of the season, and after many delays caused by snow storms, and the cutting of a road through a dense forest, I reached the east boundary of township 43, range 8, on November 5, at its intersection with Red Deer river, but as the river was full of drifting ice, I had to wait till next day to cross the outfit over the ice bridge which formed during the night. Here, two of my horses died during the night. One of them had been sick for some time, and the cold weather likely killed him; the other mired himself by breaking through the ice formed over a muddy hay swamp, and being unable to extricate himself, was found frozen stiff the next morning.

The east boundary of township 43, range 8, in sections 36 and 25, crosses a gently rolling country partly covered with green or dry poplar bluffs, broken by willow and hay marshes. The remainder of the township crosses a nearly level, burnt country overgrown with poplar and willow scrub, interspersed with small bluffs of dry poplar. Copeau river is intersected on section 25; a brook of about the same size as the river crosses on section 13. The land is first and second class.

The character of the country in township 41, as seen on the east boundary of ranges 7 and 8, is about the same in both ranges, and may be described as a gently rolling country heavily timbered with poplar, balm of gilead, scattered large spruce, mixed thick undergrowth of alder, soft maple, hazel, and willow. The poplar timber has been partly fire-killed in the eastern half of range 7, but the spruce which extends over both ranges has generally escaped fire, and is very suitable for lumbering purposes, if found in sufficient quantity. A large muskeg, partly bare, and averaging half a mile in width, extends over both ranges in the south half of the township. The land is first class, but owing to its bushy character, is not fit for immediate settlement.

In township 42, ranges 7 and 8, the country changes suddenly; it is all burnt and overgrown with willow scrub and occasionally interspersed with bluffs of small dry and green poplar, and broken by numerous hay marshes. A good sized creek enters range 7 on section 6, flowing in an easterly direction, and runs out on section 25. On the north shore of this stream is a pack trail leading from Nut lake to the mouth of Greenwood river, a tributary of Red Deer river. The land in these ranges is very suitable for ranching, if not for farming.

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On December 2, owing to the great depth of snow on the ground and the want of feed for horses which were starving, I decided to close the survey and started for Yorkton where I arrived on the 14th, and after discharging my party and disposing of my outfit, left for home.

During the course of the season, I surveyed over 158 miles of base line and meridians. Owing to the great difficulties experienced in carrying the survey over a very wet and bushy country rendered nearly impassable by the frequent rainy weather which prevailed last summer together with the great drawback of having to pack supplies on horses from Fort à la Corne over such a country in which it often took from two to three weeks for two men with five horses to accomplish a round trip, I consider this mileage is fair, and do not hesitate to say that it will compare to advantage with the mileage made by any of the men employed by the day whose remuneration much exceeded mine.

Before closing this report, I would suggest that on survey parties where packing is necessary, the man employed on this duty should be paid a little more than the other labourers, say \$1.25 per day. He is much exposed to the inclemencies of the weather, as for example having to sleep out away from camp the greater part of the time, is almost continually wet through, obliged to cook his own meals in addition to the other work, and generally journeys alone.

I have the honour to be, sir,
Your obedient servant,

P. R. A. BELANGER, D.L.S.

APPENDIX No. 18 TO THE REPORT OF THE SURVEYOR GENERAL

REPORT OF J. K. McLEAN, D.L.S.

SURVEYS IN NORTHERN ALBERTA.

ELORA, ONT., February 4, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to report as follows on the survey of township outlines in northern Alberta, made under instructions from you dated April 12, 1901.

Owing to the wet season, I had difficulty getting to the place of commencement, on the 5th meridian. I was able to go with wagons to the north-east corner of township 58, range 27, west of the 4th meridian; from there, I used pack horses.

The heavy growth of timber with which the country was once covered, has been burnt off. No sod has formed yet, although there is a heavy growth of blue-joint grass, with willow and poplar scrub, the leading horse would sink to the knees and those following made the trail almost impassable.

Upon reaching the 5th meridian, I retraced the east boundary of township 60, range 1, west of 5th meridian, to the overflow of the Pembina river. Nearly all signs of the 5th meridian have disappeared, although by re-running the line, the remains of the old wooden posts could usually be found.

The Pembina river was very high, and backed up through the lower places a long distance into the woods. I was unable to get across the river with a raft and, therefore, ran the section lines around to the north boundary of township 60, range 27, west of the 4th meridian. A great deal of the country along the east boundary of township 60, range 1, is fair land for mixed farming.

Township 60, range 27.—The north boundary of this township crosses several large muskegs generally burnt over with intervening spaces of poplar of fair size. The east boundary also passes through large muskegs with spruce timber. Very little of the township is suitable for farming. Bath creek runs northerly through the easterly portion; it is about thirty links wide with sand banks and bottom. It varied greatly in size when seen by me.

Township 59, range 27.—The east boundary passes through a fairly good country broken by muskegs. The timber has been burnt except in section 13, where there is a small area of spruce suitable for lumber, and mixed with poplar and cottonwood. The burnt country is covered with a growth of poplar and willow scrub. South of the timber on section 13, the country is very open, almost prairie. Very little scrub has come up, and a good growth of blue-joint grass covers the ground. These sections would make good farms. The soil is clay loam with clay subsoil.

Township 60, range 26.—The northerly portion of this township is much broken by swamps and muskegs. The timber has been burnt, although there is some poplar of small size still to be found. Where it is burnt over, the timber has almost all fallen, and a thick growth of scrub has sprung up. A small pond is crossed on section 34, and a dense growth of poplar from four to eight inches in diameter is met, which extends to the south about half a mile and westerly almost to Lac des Jones at the north-east corner. This lake extends south into township 60 a short distance and north

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and north-easterly several miles. On the south side of the lake, there is a very wet, springy muskeg.

The east boundary of sections 35 and 26 passes through some fair country, but going east the land becomes very sandy with scrubby timber. This continues southerly to section 1 where some good land, very open and with occasional scrub and poplar, is met.

Township 59, range 26.—The east boundary passes through a fine open country with occasional poplar and willow scrub. There is a good growth of blue-joint and red-top grass suitable for hay, with wild vetches and pea vine on the higher portions. The soil is clay loam with clay subsoil and will make good farms; a number of small pieces of land were ploughed by intending settlers shortly after this line was run. Very heavy spruce from eight inches to two feet in diameter was found at the south end of the line, and extends almost across the township. It has all been killed by fire, but is sound and would make good building timber or lumber.

Township 60, range 25.—The row of sections along the south boundary are fairly good. The timber has been burnt, and scrub has since come up. The remainder of the township is of little value. Along the east boundary, the country is much broken by swamps and muskegs, and the timber has been burnt. Sand hills with intervening muskegs covered with jackpine are met in section 25; they continue to the north boundary and west along it. Helliwell lake is crossed on section 35, and extends about a mile and a half south-west and several miles north-east; it is narrow and shallow. Lac des Jene: is met in section 32.

Township 59, range 25.—The country along the north boundary is open with some scrub. The land is of fair quality, the soil being clay loam with clay subsoil somewhat stony in places. The open country extends about two miles south, when heavy poplar, cottonwood and spruce, with occasional birch, are met. Large muskegs are also seen. The birch is from five to ten inches in diameter and the other timber is from eight inches to two feet. The large timber extends nearly across the township but is generally dead, having been killed by fires.

Township 60, range 24.—Sand hills with jackpine and occasional muskegs extend along the north boundary nearly to the Edmonton and Athabaska Landing trail on section 35 when open; rolling, gravelly country with scrub is met. The jackpine on sections 34 and 35 and on each side of the base line is unusually large, being eight inches to two feet in diameter and growing very close together. Along the east boundary through sections 36 and 25, there is a strip of good country, very open with a fine growth of grass; considerable highland hay was cut here last season. The east boundary of this township commences in a lake, and a lake is crossed on section 25. South of this lake the country is poor. Another lake is crossed on sections 24 and 13. All these lakes are shallow with mud bottom. Rolling and hilly country continues to section 1, when a large muskeg is crossed. The south half of section 1 would make a fair farm.

Township 59, range 24.—Along the east boundary the country is very sandy; the timber is jackpine partially destroyed by fire. Large swamps extend through sections 13 and 12. Redwater river is crossed near the south end of section 12, and is about forty links in width with sand banks and bottom. South of the river, the country is open, almost prairie, and extends west about two miles. This land would make fair farms, although somewhat stony and gravelly in places. A settler located in the south part of the township devotes his time entirely to cattle. No grain was seen, but potatoes, onions, beets, and celery, looked well. The remainder of the township is much broken by muskegs. The trail from Morinville to connect with the trail from Edmonton to Athabaska Landing passes through the south-east corner of the township.

Township 60, range 23.—A lake about half a mile wide is found at the north-east corner of the township. Brulé and slash with high poplar and willow scrub extend almost to section 36 when poplar, cottonwood, and spruce of large size are met. This continues to the centre of the section where a large muskeg is crossed, and a dense growth

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of poplar continues to the east boundary. The poplar extends south about half a mile; the country then becomes swampy with occasional ridges. This is a poor township, none of it being suitable for farming.

Township 61, range 24.—A lake with surrounding muskeg occupies the south-east corner. To the west, the country is rolling and open, and to the east is high and covered with scrub. An open valley in which considerable hay is cut, commences on section 12, and runs north-west. To the west of the valley, the country is sandy with jackpine timber. At the north end of the valley a field of good oats was seen, but the extent of land suitable for farming is very small. In sections 24 and 25, ravines with small creeks running into Flynn creek are crossed. The country is generally covered with a heavy growth of poplar scrub. Flynn creek is crossed in section 36. It is one of the chief branches of the Tawatinaw river and runs in a valley with abrupt sides and about one hundred feet deep.

Township 62, range 24.—The soil is generally light. A large grass muskeg is crossed on section 1. The Athabaska Landing and Edmonton trail passes along the west and north sides of the muskeg. In section 12, we begin to descend along the valley of the Tawatinaw river. This valley is about one hundred and fifty feet in depth and varies in width from twenty chains to about a mile. The meridian passes along the east side of the valley, descending and crossing the river in section 25, after which it follows the west side. The river is here about thirty links wide and two feet deep with a moderate current and sand bottom. A muskeg extends between the river and the foot of the valley. The timber has been destroyed by fire. In the valley, there is a light growth of scrub, while the sides are thickly covered. These townships are of little use for farming, while the growth of summer feed and hay is so scarce that they are of very little use for cattle.

Township 57, range 3, west of the 5th meridian.—The country along the north boundary of this township is open and suitable for grazing. The open country extends south about two miles and north to lake La Nonne. It is broken by small gravelly hills and not suitable for agriculture. Green bush commences about two miles east of the east boundary, but the timber is only suitable for firewood, fencing, and small buildings. Lake Majeau lies in the south-west part of township 58, range 3. It is about five miles long and from one mile to a mile and a half wide, and is shallow with marshy shore. Several settlers have located in township 58, range 3, around lake La Nonne. Some of them have a considerable number of cattle, one man having two hundred and twenty-five and eighteen horses. They secure hay along the small creeks and in the marshes. Although the feed for summer is plentiful not many more cattle could be kept as the supply of hay is limited. About half of the cattle were moved for the winter to Paddle river where there is said to be a large amount of hay. The settlers have abandoned grain growing, as there is no market at a convenient distance, and beyond growing some potatoes no cultivation is attempted.

I have the honour to be, sir,
Your obedient servant,

J. K. McLEAN, D.L.S.

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APPENDIX No. 19 TO THE REPORT OF THE SURVEYOR GENERAL

REPORT OF J. N. WALLACE, D.L.S.

SURVEYS IN NORTHERN ALBERTA.

HAMILTON, June 19, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to submit the following report of my field operations during the survey of township outlines in Alberta, in accordance with your instructions of April 19, 1901, and subsequent instructions of January 14, 1902.

I received the first named instructions at Calgary on April 25, 1901, and the next day commenced to organize and outfit the party. I left Calgary for Wetaskiwin on May 4. Here the balance of the outfit was received from Edmonton, and the organization of the party completed. On May 9, a start was made for Pigeon lake in order to run the east outlines of townships 45 to 48, range 2, west of the 5th meridian.

The condition of the road to the lake was very bad indeed, the mud being so deep that at times the horses could hardly stand, much less pull a load. As a consequence we did not reach the lake till May 15. From this date to June 22 the time was occupied in running the east boundaries of the four townships named. The weather was very wet, the whole party being drenched almost daily, the timber heavy, and the ground so soft that even pack horses could hardly move camp.

Having completed these outlines, I started for Ponoka on June 23, and reached there on the 26th, travelling over a very good road along Battle river. As no trains were then running, I had to send by road to Wetaskiwin for part of the outfit left there. I then moved southerly to Red Deer where I arrived on July 1. A few days were spent there getting supplies and men, the latter being difficult to obtain, as times were good and few men unemployed.

On July 5, I left Red Deer, and travelling some thirty miles across country south-westerly reached the north-east corner of township 36, range 4, where I was to commence operations. We had again a very bad road and being unable to hire an extra team at Red Deer, had to double trip almost the whole journey.

Between July 5 and September 12, I was engaged in extending the 10th base westerly for eighteen miles, and in running southerly twelve miles along the east of townships 35 and 36, range 5, and twenty-two miles northerly along parts of the east of townships 37 and 38, ranges 5, 6 and 7. On account of an unbroken belt of muskeg lands running north-westerly through some of these townships, which could not be crossed by horses, I could only run these outlines up for a certain distance from the south. On September 13, the outfit was moved north-westerly, and easterly around this area by the Mountain House road, and so, camping on the north side, the ends of the several lines were found and were continued up to the correction line.

After completing these outlines, and also the east of township 39, range 6, and of townships 41 and 42, range 5, I moved back south-easterly and ran the east outlines of townships 34 and 35, range 4. The whole of the jog at the correction line between these two townships lies in the bed of the Red Deer river, necessitating the planting of witness posts for both corners.

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It was now the last day of October. One hundred and nineteen miles had been run, but there still remained forty four miles to run. However, the water in the lower lands had become very cold, and our outfit was a summer one. I therefore set out for Olds and reached there on November 2.

On November 4 I received your letter directing me to resume work when the ground was frozen. The outfit was, therefore, repaired, and on November 15, I set out again for Rocky Mountain House. During the subsequent two months, the weather was very fine. No snow fell till December 12, and this rapidly disappeared, except in the denser parts of the bush. The whole region is subject to the warm winds from the Rockies. The weather was so mild that the Saskatchewan was not regularly frozen over, even on January 5, and we had to make a dangerous crossing on an ice-bridge formed at a bend in the river.

The last post was planted on January 7, and we reached Olds on January 10, travelling nearly seventy miles in three days.

On my way out, I received your letter of December 21, in reference to surveys north of Edmonton. I, therefore, paid off the men after reaching Olds, instructing them to report again at Edmonton on the 20th. In the meantime, I kept one man and had the outfit taken to Edmonton. Your final instructions were received there on January 22, and we left for Lake St. Ann on the 24th. The work there was completed on February 20. I then moved the outfit back to St. Albert, and from there north-westerly to the north-east of township 60, range 23, reaching there on March 4.

The gap of twelve miles, which was left between the parts of the sixteenth base already run from the east and from the west, was then run, and also the east outlines of townships 59 and 60, range 22, and of townships 60 and 61, range 23. Even in this north country, the snow was all gone in the open by March 12, and in the bush by April 15. On April 12, I stopped operations and reached Edmonton on the 16th, and paid off the party next day. Having disposed of the outfit, I left Edmonton on the 22nd, and reached Ottawa on the 27th.

In all two hundred and twenty miles were run, twenty-five miles near Pigeon lake, one hundred and thirty-eight miles between Red Deer and Rocky Mountain House, twenty-one miles north of Lake St. Ann, and thirty-six miles about fifty miles to the north of Edmonton.

The country, through which these outlines run, is so extensive that only a general description of it is possible. In the field notes it has been described in more detail, every opportunity of gaining knowledge, when running the lines or moving camp, having been utilized.

Outlines near Pigeon Lake.

These comprise the east boundaries of townships 45 to 48, range 2, west of the 5th meridian. The country is flat and wet to the north, hilly near Pigeon and Battle lakes, and is a rolling prairie at the extreme south. For three miles north, and three miles south, of Pigeon lake, and again for a mile and a half south of Battle lake, the outlines run through a country heavily timbered with poplar, spruce and birch. Poplar is more common than spruce, and birch is somewhat rare. The spruce runs to 28 inches and very many trees are over 14 inches. The timber here is too valuable to be simply left for settlers' use. Lumbering is carried on, to a small extent, on the south shore of Battle lake, the logs going down to Ponoka by Battle river.

There is little open country north or south of Pigeon lake, but a good deal north of Battle lake and river. The part north of Pigeon lake suffers for want of a good road to the railway, but the Battle river district is already well served by a good road. The south of township 45 is the northerly end of an extensive open country.

Outlines between the Medicine and Red Deer rivers and Rocky Mountain House.

These outlines, aggregating one hundred and thirty-eight miles, extend over a district stretching some fifty miles north-westerly from the junction of the Red Deer and Raven rivers.

The country is of a mixed character, being in places open prairie, and in others thickly wooded, so varied that the character of one mile is seldom an indication of what the next will be.

With regard to the south-easterly part of the district, the most notable characteristic is an extensive prairie following the valley of the north branch of the Raven river. This prairie runs diagonally through township 35, range 3, township 36, range 4, and townships 37, ranges 5 and 6. It varies from one to three miles in width, and is about twenty miles long. A fine road runs through the centre, and the land is nearly all good.

To the south of this open area, that is in the angle formed by the junction of the Raven and Red Deer rivers, and comprising parts of townships 34, 35 and 36, range 4, the country is generally wooded. The higher lands form about two-thirds of the total and are lightly covered with poplar. The remaining parts are local swamps with spruce and tamarac, and require drainage.

Running parallel to, and about three miles north of the Mountain House road, there is a belt of low lying land of inferior quality. It is doubtful whether this particular area can be much improved, even by drainage, as there is hardly any soil in the numerous muskegs.

To the north of this last region, the land rises to a higher and more open country near Horsepound creek, forming parts of townships 38, ranges 4, 5 and 6.

Township 37, range 6.—The Clearwater runs through the middle of this township, and can be forded where it crosses the south outline. A large prairie area, being the western end of the prairie previously mentioned, lies to the east of the river. West of the river, the township is irregularly wooded, in places so lightly that good grass is abundant, and in others covered with scrubby willow with patches of spruce.

Townships 37 and 38, range 7.—Excepting the easterly third of township 38, these lie west of the Clearwater. There are patches of poplar, spruce and pine. Along the west outlines, the country is hilly, the outlines running across a succession of hills about 150 feet high, generally burnt bare, with very good grass in the numerous valleys. The foothills, however, are not visible from these outlines. The soil is generally second class, being somewhat sandy towards the west of township 37.

Townships 39 and 40, range 7.—The Saskatchewan river runs through these, about fifteen square miles being west of the river. There is a good ford at certain seasons opposite the ruins of the Rocky Mountain House. The part west of the river has many long ridges 60 feet high, with scattered pine and poplar. The soil is sandy in places. For about twenty miles to the north-west, the country is rolling, with a forest of Banksian pine and some spruce and tamarac, but very little poplar.

The eastern outlines of the two townships run through a flat country, very swampy towards the southerly part of township 40, and generally covered with scrubby willow, pine and tamarac.

Townships 39 and 40, range 6.—These two are generally flat along their westerly halves with a good deal of swamp area alternating with partly burnt and open lands. There is a good deal of open dry land around the south-west of township 39. The easterly halves are generally open and rolling, being either open prairie or else covered with a light scattering of poplar. This open area is the western end of an extensive open country running up from the east along Horsepound creek.

Townships 41 and 42, range 5.—The southerly four miles of these outlines run over a broken burnt country with windfall and second growth poplar. The southerly mile of township 41 runs across a high partly open country with light poplar. To the north of this, the land falls and is swampy. This area should be easily drained, however, as three large branches of the Medicine river cross the outline.

The timber in the district is of all sizes. The poplar generally is in small forests of five-inch trees, but sometimes they run to ten inches and even fourteen inches. The heaviest poplar is at the north-west of township 38, range 7. In nearly all the lower lands, not so wet as to be boggy, good spruce may be found, either in small groves or

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in strips along the larger rivers. Trees running to twenty inches were frequently cut down on the line, but the groves are so scattered that it is hard to estimate their commercial value without more detailed knowledge. These groves generally extended along the outlines for a quarter of a mile when they would end as suddenly as they began. The timber is always good. The heaviest spruce noticed was along the east of section 12, township 37, range 5; sections 12 and 36, township 38, range 6; section 1, township 37, range 7; and sections 24 and 25, township 38, range 7, and at the north-east of township 38, range 8. The tamarack is always poor. Banksian pine running to 9 inches is abundant in townships 39 and 40, range 6, and to the west of the Saskatchewan. Birch is very rare. A few twelve-inch black pine occur west of the Clearwater and Saskatchewan rivers.

Outlines North of Lake St. Ann.

These comprise the north of township 56, range 4, and the east of townships 55 and 56, ranges 4 and 5. The Alexis Indian reserve covers the whole of township 55, range 4, except a strip of land half a mile wide along the west, and a mile and thirty chains wide along the north. The north-east and east of township 56, range 4, is covered with a dense forest of nine inch poplar, with alder thickets. The remainder of the district to the south and west is a good deal burnt over, especially the south of township 55, ranges 4 and 5, where there is a large open area with only a few burnt stumps. There are, however, patches of good timber still left, sufficient for settlers' use. The soil is generally second class. Only about a mile of swamp was crossed along the outlines. There is some fine spruce timber growing along the east of section 25, township 56, range 4, and also along the east of section 25, township 55, range 4. There is a good wagon road from Edmonton to the south shore of Lake St. Ann.

Outlines between Edmonton and Athabaska Landing.

These outlines comprise twelve miles of the sixteenth base across ranges 21 and 22, and the east outlines of townships 59 and 60, range 22, and townships 61 and 62, range 23.

The district lies about ten miles east of the Landing road. The surface is undulating and all more or less covered with timber. The north of township 60, range 22, runs through a thick forest of five inch to fourteen inch poplar extending about two miles to the north and south. The north of range 21, is through a flat swampy country with many willow and alder sloughs. These low lands extend across the west of the township. The township to the south is on higher ground and is generally covered with thick small poplar, scorched by fire at the correction line to the south.

Along the east of townships 61 and 62, the country falls to the north of township 61, where there are some large swamp areas. Beyond this it rises to the north, and is irregularly timbered. The northern part of the township is in a very attractive country. The soil is second class, where not swampy, and is not sandy.

Spruce and poplar over twelve inches occur on the east of sections 1, 12, 36, township 61, range 23, and of sections 12, 13, township 62, range 23, about one-fourth of the timber being spruce and the balance poplar.

Over nearly all the country surveyed perhaps the greatest hindrance to rapid settlement is the scarcity of good roads. Farmers will pay high prices for land near a settlement, rather than make their home in a district not supplied with a good road, even though land there may be better and far less costly. A large amount of individual labour has been spent on such roads as there are, but, by reason of its being so disconnected, it is all practically wasted.

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Much time was lost in the earlier part of the season, owing to the difficulty of engaging and keeping men. Times in the west are very good and work plentiful. Men were therefore always ready to leave the party if the slightest hardship were encountered.

In conclusion I wish to express my appreciation of the aid given by my assistant, Mr. E. H. Phillips, in the various details of the work.

I have the honour to be, sir,

Your obedient servant,

J. N. WALLACE, *D.L.S.*

APPENDIX No. 20 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF J. C. DESMEULES, D.L.S.

SURVEYS IN NORTHERN ALBERTA.

MURRAY BAY, March 14, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to submit herewith my general report of survey and subdivision of townships in northern Alberta during the season of 1901.

According to your instructions of May 3, 1901, I left Murray Bay by steamboat on the 15th and reached Quebec the following morning. Being a holiday, I had to wait until Friday the 17th to get my tickets. There were no through trains westward from Montreal until Sunday evening when I left Quebec and travelled without stopping until I reached Edmonton, Friday, May 24. My time was employed to June 6, hiring men, sending for the horses and wagons at Bittern lake and buying provisions.

After having sent ahead a part of my outfit and provisions, I started from Edmonton on June 6 with the whole of my party, but the most we could travel was about six miles a day; the wagons frequently stuck in the mud to the axles and the horses mired several times in a mile. Travelling continued in this way until I reached my starting point at the south-east angle of section 26, township 53, range 1, west of 5th meridian; it poured rain almost every day during the trip and the roads were in consequence the worst I have ever seen. I was glad to have the whole of my outfit and provisions with me before commencing the survey and not be obliged to send back for any, seeing that the roads were so fearfully bad throughout the whole country.

The subdivision of the last part of township 53, range 1, west of the 5th meridian, was commenced on June 18, and ended on August 14. This work proceeded very slowly owing to the rough nature of the country, which was broken by steep hills and deep ravines, and covered with heavy bush, thick underbrush and windfalls; besides this, we had to open upwards of eight miles of road through solid forest to move camp. The wet weather during the whole of June and the greater part of July and also the traverse of over twenty miles of lakes in sections 19, 33 and 34, contributed a great deal to the delay in the execution of this work.

East boundary of sections 26 and 27.—This part of the country is broken and hilly, and covered with poplar from six to twelve inches in diameter, together with scattered spruce of large size and fallen timber. The soil is sandy loam, second class.

East boundary of sections 34 and 28. This part of the country is also hilly and broken by deep ravines with ponds of clear water in the bottoms. It is covered with a heavy bush of poplar and birch of large size. The soil is clay loam, first class. About two hundred acres of section 34 is covered with the waters of lakes 1, 2 and 3. Lake No. 1 covers an area of about twenty-five acres in the north-east corner of section 28. These lakes are fine sheets of clear water of irregular shape and deep, with thickly wooded shores.

East boundary of section 33. The line on the first quarter section crosses lake No. 1 at 22.70 chains, 17.74 chains in width; the shores are covered with poplar and birch trees six to twelve inches in diameter. The last quarter section is covered with

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brulé and young poplar. A small corner of lake No. 3, 5·39 chains in width, is crossed at 74·37 chains: about fifty acres of land in the south-east quarter of section 33, are covered by lake No. 1, besides about ninety acres in the north-west corner by lake No. 5.

North boundary of sections 20 and 19.—This line runs over a comparatively level country with poplar and birch trees six to twelve inches in diameter, and clay soil of good quality.

East boundary of sections 29 and 32.—The country on the first of these two sections is rolling and covered with poplar and birch trees six to twelve inches in diameter, and is broken and hilly on section 32. On the latter section, lake No. 5 is met at 29·09 chains, 21 chains in width; the same lake is met again at 63·24 chains, six chains and thirty-two links wide. Lake No. 5 covers about one hundred and twenty-five acres of land in the north-east part of section 32. On both sections, the soil is clay loam, thickly covered with poplar and birch trees six to twelve inches in diameter except at the end of section 32 where it is scrubby and burnt country.

East boundary of section 18.—This line is through rolling country covered with a heavy growth of poplar and birch six to twelve inches in diameter, with a thick underbrush and fallen timber. A hay marsh is crossed at 58 chains, 3 chains wide by 5 chains in length.

East boundary of section 19.—The country on this line is undulating, covered with poplar and birch trees six to twelve inches in diameter, and a thick underbrush of willow and alder. The soil is a good clay loam. The greater part of the south-west quarter of section 19 and a fraction of the north-west quarter are covered by lake No. 4. It is a fine sheet of clear water with deep bottom, thickly wooded shores, and a considerable amount of hay in several of its coves.

East boundary of section 30.—This is broken and hilly with deep ravines and several spruce muskegs. On the hills are groves of large poplar with thick underbrush.

East boundary of section 31.—This line runs over a broken and hilly country with deep ravines, spruce muskegs and scattered growths of young poplar and heavy layers of fallen timber.

The part of township 53, range 1, west of the 5th meridian, above described, offers very little inducement to settlers for farming purposes owing to the rough nature of the country, but might serve as a timber reserve on account of the thick forest of poplar, scattered spruce and birch of large size, suitable for building, fencing and lumbering purposes. This part of the township might also be adapted to cattle raising because of the numerous hay swamps, lakes and ponds watering a great part of the country.

Township 54, range 1, west of 5th meridian.—The subdivision of this township was commenced on August 19 and ended on September 17.

North boundary of sections 36 and 35.—This part of the 14th correction line runs over rolling country covered with a heavy growth of poplar six to twelve inches in diameter and crosses a lake of 41·30 chains in width, extending 10·22 chains westward on section 35. The soil is clay loam.

North boundary of section 34.—At 5·03 chains a lake is met which extends 15·39 chains westward. The country on this section is rolling and covered with a young growth of poplar and a heavy layer of fallen burnt timber. The soil is a black loam of good quality.

North boundary of section 33.—This line runs through a muskeg extending 38·50 chains westward; thence, the land becomes dryer, and there is a space of burnt country up to 56·65 chains where Matchayaw lake is met; it extends through the remainder of this section and as far as 22 chains on section 32. The Sturgeon river is crossed by this line, its west side being at 24·43 chains on section 32. The river is here fifty links wide and three feet deep. It is crossed a second time at 31·25 chains, with the same width as above.

Matchayaw lake, an expansion of Sturgeon river, is a fine piece of water. It could not be traversed at the season of the year I saw it, as it had overflowed the whole sur-

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rounding country through the woods, and it was impossible to set stations on its shores. This lake and Sturgeon river both offer inducements to sportsmen because of the innumerable feathered game frequenting them.

The country through the remainder of section 32 is swampy.

North boundary of section 31.—This line for the first 30 chains runs through a spruce muskeg strewn with fallen timber. At 44.64 chains, it crosses Sturgeon river, and six times more in a distance of 23 chains. The line ends on a ridge of about thirty feet overlooking Sturgeon river northward.

East boundary of section 31.—This line was run southward over a rolling country covered with jackpine, six to twelve inches in diameter, commencing at eight chains from the starting point. The soil is sandy and of no great value.

East boundary of section 30.—The country over this section is rolling and covered with young poplar. The original forest was destroyed by fire some years ago; a few scattered poplars six to twelve inches in diameter are still seen amongst the fallen timber and windfalls.

North boundary of sections 19 and 20.—The country over these two sections is rolling and covered with a second growth of poplar intermixed with fallen timber. Kilini creek is crossed at twenty-six chains on section 20; it is thirty-one links wide, two feet deep, with sandy bottom. Several hay marshes along the creek yield an abundance of hay for the neighbouring settlers in township 54, range 2.

East boundary of section 20.—This line runs over a rolling country covered with young poplar, scrub and fallen timber intermixed as far as forty-four chains, then poplar, birch and spruce six to twelve inches in diameter, and heavy windfalls. The soil is sandy loam.

East boundary of section 17.—This line runs over a rolling country covered with poplar and birch trees, six to twelve inches in diameter, with scattered spruce of the same size, thick underbrush and fallen timber. At fifty-seven chains there is a spruce muskeg about eighteen chains wide, thence, poplar and birch.

East boundary of sections 19 and 18.—This part of the country is rolling and covered with young poplar, willow and scrub.

North boundary section 7.—This line in the first quarter section runs over a rolling country covered with a thick growth of young poplar and scattered bluffs of poplar of a larger size, together with jackpine, then poplar three to eight inches in diameter, thick underbrush and fallen timber. Kilini creek is crossed at 56 chains. It is fifty links wide, two feet deep, and sandy bottom.

North boundary of section 8.—The country through this section is rolling and covered with poplar three to eight inches in diameter, willow, thick underbrush of scrub and fallen timber as far as 55 chains, then spruce muskeg and fallen timber.

East boundary of section 8.—This line runs through a spruce muskeg as far as 14 chains, then over a burnt country covered with young poplar and fallen timber and windfall.

East boundary of section 5.—This line runs over a rough and hilly country covered with jackpine as far as 10 chains, then poplar 6 to 10 inches in diameter as far as 20 chains, then scrubby prairie and a valley of six chains in width, at the bottom of which runs a small stream of clear water, then poplars three to eight inches in diameter as far as 50 chains, then *brulé* with young poplar and willow growing amidst a thick layer of fallen timber.

East boundary of section 6.—This line runs over a rolling country for the first quarter section, then rough and hilly to the end of the section. It is covered with poplar three to five inches in diameter and a thick underbrush amidst fallen timber. A hay swamp is crossed at 60 chains, three chains wide at the point of intersection. This part of township 54, range 1, west of 5th meridian, cannot properly be called a farming country; it is better adapted for ranching and raising cattle, as the valley of Kilini creek, about forty to sixty chains wide, contains a quantity of hay and grass. The creek has an average width of forty to fifty links and two to three feet deep; it mean-

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ders through sections 7, 8, 19 and 20, and empties into Matchayaw lake on section 32 or 33. The surface of the country is broken, but not so rough as the part of township 53, range 1, above described. The original forest was destroyed by fire some years ago; no valuable timber is to be found in the west part, but some groves of large poplar still exist on the correction line at the northeast corner of the township.

The remainder of the township, according to reliable information, is much broken and hilly and contains numerous swamps and lakes. I, therefore, deemed it impossible to continue work under such disadvantageous circumstances and was obliged to close operations much sooner than anticipated; besides both myself and assistant and most of my party were taken sick owing to the hardships endured during the season through the roughness of the country surveyed and exposure to rain and dampness almost every day.

I, therefore, to my regret, left the field on Wednesday, September 18, and with much difficulty forded Sturgeon river near the south-east corner of township 55, range 1, west of the 5th meridian; there was no better crossing of the river and no bridge. I reached Edmonton on the 19th and after having settled accounts and disposed of my horses and outfit, leaving the whole in the care of Urbain Verreau, of New Lunnon, Alberta, crossed the Saskatchewan to the railway station, three miles southward of Edmonton, whence I started homeward on September 26 and arrived at Murray Bay on October 1.

I have the honour to be, sir,
Your obedient servant,

J. C. DESMEULES, *D.L.S.*

APPENDIX No. 21 TO THE REPORT OF THE SURVEYOR GENERAL

REPORT OF C. C. FAIRCHILD, D.L.S.

SURVEYS IN ATHABASKA DISTRICT.

SIMCOE, ONT., January 30, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—Acting under instructions, dated April 20, 1901, for the survey of lands to be settled by 'La Société de Colonisation de la rivière La Paix,' I beg leave to report as follows:—

I left home on May 7 and proceeded to Edmonton, where I purchased my outfit with the exception of horses. Here, I learned that the overland trail to Lesser Slave lake was impassable, and, accordingly had a boat built at Athabaska Landing, from where we travelled by way of the Athabaska and Lesser Slave rivers to Lesser Slave lake.

On our arrival at Athabaska Landing, one of my men was found to be suffering from smallpox and was left there in charge of the North-west Mounted Police. On the passage up the river two more cases developed, and the men were sent back in charge of a man named Brown who later overtook us at Lesser Slave lake, bringing the man Page left at the Landing with him.

F. F. Tupper of our party was the next victim, but, as sending him back with attendance meant the weakening of my party too much, he remained with us and by exercising great care we escaped further infection and arrived at Slave lake where we went into quarantine on June 26. After examination and a thorough disinfecting, quarantine was raised on June 27, but a strong wind kept us storm bound until July 1, when we proceeded to the west end of Buffalo lake.

Here, after much difficulty, I procured three freighters and loaded them with 1,200 pounds each, that being a maximum load to take over the trail to Peace river at this season of the year. The teams left Slave lake on July 5 and arrived at Peace river on the 15th, travelling both Sundays.

After dispatching the freight, I bought twelve horses for 365 dollars from the settlers. They were small but were all broken as packers, and larger horses would have cost from 80 to 120 dollars each. I loaded eleven of them, and found that I still could not take all my outfit, and as a freighter could not be secured at any price I left the balance of the outfit to follow at the first opportunity.

After crossing Peace river I found the trail very good and proceeded for about twelve miles, the pack train made three trips as far as Mr. A. Brick's, where I left a large part of my supplies. The good trail continued for about eight miles farther, after which we had to open a road to the 6th meridian. This trail is very difficult owing to cut-banks, scrub, brulé, and bush.

Supplies are generally taken into the Peace river country either on sleighs, over the ice, or in late summer when the rivers are low and tracking is comparatively easy. Owing to the rapids in Lesser Slave river, winter travel is limited to the months of January, February and March, and an outfit leaving Edmonton much after March 1 is apt to experience difficulty before reaching Lesser Slave lake, owing to open water in places along the rapids.

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The 6th meridian was easily found and re-traced in the green timber, but in the scrub and brûlé on the north side of the river very few signs remain and the line was re-cut in these places. The post and mound at the intersection of the 21st base line with the meridian were found, and are in a good state of repair.

I extended the 21st base line across ranges 26 and 25, west of the fifth meridian, and opened out the sixth meridian across township 80. I then surveyed the remaining boundaries of township 80, range 26 and subdivided the township. I produced the meridian between ranges 25 and 26 south across township 79, ran the remaining outlines of township 80, range 25 and subdivided the northern third of this township and all that part north of the Peace river. I then made a traverse of Peace river across the townships.

The subdivision of township 80, range 25 and the traverse of Peace river were done while waiting for supplies from Lesser Slave lake. It was almost an impossibility to get freight through until September, supplies sent out from Edmonton which reached Slave lake on August 15th only arrived at Peace river crossing on October 1. As soon as these supplies reached me I proceeded with the survey of the line between ranges 24 and 25, township 79, intending to go thence to the 20th base line and close in on the correction line with the meridians between ranges 24 and 25 and between ranges 25 and 26.

On October 7, when within two miles of the correction line, I met with an accident that rendered further work for the season impossible. I very much regret the accident, as the weather and country were now in especially good condition for surveying and my supplies would have carried me a month longer. The only difficulty we now experienced was keeping our horses. Feed was scarce and the flies gone, so that it was nothing unusual to find some of the horses three or four miles from camp, and although I had provided them with five bells and every horse was hobbled, we lost two the day before leaving; two men remained behind to trace them but all their efforts were unavailing. I left instructions if they were found to send them down to Mr. Brick's to be kept until my return or held subject to your order.

On our return journey I left all the unused iron posts at Mr. Brick's, and at Lesser Slave lake I left my pack saddles, blankets, &c., and three horses to be wintered. I sold the remainder of the horses as most of them were not in very good condition after the season's work.

Resources, &c.

The Peace river country is essentially a grain and stock raising country. From Lesser Slave lake to Peace river and along the river there is a deep rich alluvial soil. North of the river, from the crossing westward, extends a large prairie, while the country to the south is generally heavily timbered. Along the banks of the river and on the islands there is some fine spruce, but farther back, poplar, cottonwood, and birch are found, the former predominating. The whole district might be described as a level plateau through which the Peace river and its tributary the Smoky river have cut great gullies from 400 to 1,000 feet deep. The bottom lands in the valleys are not extensive, and in many places the high banks slope directly up from the water's edge.

Farming is now carried on to a limited extent at the Peace river settlement, which extends from Peace river crossing westward about 20 miles along the north bank of the river. The settlement is on the river flats, and the produce is simply wonderful considering the latitude. Wheat and oats grown during the summer of 1901 were of excellent quality and the yield prolific. Potatoes, turnips, onions, and other vegetables grew to maturity in abundance, and I saw tomatoes grown and ripened in the open air.

The climate is even warmer than farther south; while a heavy snow storm was experienced in Edmonton and other parts of the North-west, late in September, we had at the same time only a heavy rain storm without frost.

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Horses winter without feeding and in some favoured sections I was told that cattle could do likewise. Every one I met in the district, who had visited the Spirit river and Grand prairie sections extolled their adaptability for farming as being even better than the Peace river valley. These sections lie to the west and southwest of the one in which I was engaged, and from reliable information given me I am satisfied that they are unexcelled in the whole of the territories.

Lack of transport facilities is the district's greatest drawback. The Peace river is navigable in low water from the falls below Vermillion for a distance of 500 miles up stream. The Smoky river is not navigable, except in high water or in short reaches. What is needed is connection between this great waterway and the railroad line to the south.

The settlers are beginning to give more attention to the cultivation of the soil, the little settlement mentioned above, which consists of about twenty families in addition to the Roman Catholic and English Church missions, produce enough wheat, oats, potatoes, &c., for their own use, and this year will have a considerable quantity to sell to the traders and others not engaged in farming. This market of course is limited, but wheat sells for \$1.50 per bushel, oats for 75 cents to \$1 and potatoes at \$1 per bag, and at the small grist mill in the settlement whole wheat flour is worth \$6 per cwt.

Moose, caribou, and bear are still plentiful along the rivers and furnish a considerable part of the meat supply to the settlers. Hogs are now being raised, and as game becomes scarcer, pork will be produced in sufficient quantities for home use, although at the close of last season's work there were not two hundred pounds to be got in the whole district.

The heavy growth of timber will interfere with the early settlement of parts of the district, but the timber will no doubt form a considerable source of wealth in itself.

I have the honour to be, sir,
Your obedient servant,

C. C. FAIRCHILD, *D.L.S.*

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APPENDIX No. 22 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF A. C. TALBOT, D.L.S.

SURVEYS AT LESSER SLAVE LAKE, ATHABASKA DISTRICT.

OTTAWA, March 25, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to submit the following report of my field operations at Lesser Slave lake during the season of 1901.

In pursuance of your instructions dated March 20, I left Ottawa on the 30th and arrived at Edmonton on April 5. Here, I endeavoured to get a suitable boat to take my party, baggage and supplies from Athabaska Landing to Lesser Slave lake, but as none could be obtained, I sent an order to the landing by the first mail to have one built. I then turned my attention to securing freighters, but as much of the freighting in the district is now done by farmers, who at this season of the year were engaged seeding their farms, it was consequently difficult to procure the services of any of them, and it was, therefore, the 14th before I was able to secure two teams and wagons. In the meantime, I hired the men and bought the supplies necessary for the trip. The freighters left Edmonton on the 15th with about 5,000 pounds of baggage and supplies, but owing to rain and bad roads, they did not arrive at Athabaska Landing until the 22nd. The day was spent at the landing buying further supplies and getting the boat in readiness for the trip. We left Athabaska landing on May 24 and arrived at the lower end of Lesser Slave lake in the evening of June 1. It rained during the forenoon of the following day (Sunday), but in the course of the afternoon the weather became fine enough to enable us to get part of the baggage and supplies dried, which had got wet on the way up the river. On the morning of the 3rd, there was a strong easterly wind, and we resumed our journey, but before we were fairly out in the lake, the mast of our boat broke, and we were obliged to go to the shore to make a new one. By the time we got under sail again, the wind had increased to a gale, and although we started with shortened sail, we were very glad, after sailing a few miles, to take shelter at an island, where we were kept windbound for two days. The wind subsided to some extent by the morning of the 5th, and we again resumed our journey, but for a time, the boat had to be rowed against a head wind; we were, therefore, unable to cover more than a few miles during the whole day. A strong easterly wind on the 6th enabled us to sail across the lake, a distance of fifty-five miles, and we camped that night on Stony point, from where our survey commenced.

It rained for two days after our arrival at the lake; it was, therefore, June 10 before we were able to commence the survey of what is known as the southern part of the Lesser Slave lake settlement. Our progress was slow, as we had to work very frequently in water, swamps, or muskegs, and there were many rainy days as well. Four days were also occupied upon the preliminary survey, a work that does not appear on the plan or in the field notes. On July 17, we moved camp across the north-west bay of the lake, to the northern part of the settlement. The weather continued changeable and wet until the end of July when it turned fine and dry, and we made better progress. As this part of the settlement extends from east to west, a distance of upwards of twelve miles, I hired teams to move camp from time to time, in order to keep it near the work.

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The country along the shores of Lesser Slave lake was originally covered with dense bush, consisting of poplar, balsam of gilead, spruce and large gray willows, but through fire and the work of squatters, openings have been made, which are partly covered with brush and a second growth of timber. Salt prairie on Salt creek, at the east end of the settlement, and Big prairie at the west end, are partly open, and at both of these places, squatters have commenced farming on a small scale. The soil is generally second class, being a heavy clay with a thin coating of black loam in places. In the low lands along the shores of the lake and along Heart river and Salt creek, there is some good sandy loam suitable for the cultivation of vegetables. In some parts, the land is useless for agricultural purposes, because of numerous springs of alkaline water. There is not much farming done, as most of the squatters spend the greater portion of the summer freighting between Athabaska landing and Peace River landing, for the Hudson's Bay Company and others who have trading posts at Lesser Slave lake and farther north. The Roman Catholic and Anglican Missions, together with two or three squatters, have been farming to a considerable extent and will probably expand their operations now that the land is surveyed. The crops last summer were above the average, and, so far as I am aware, there was no damage by frost. Within a short distance of the settlement, there is sufficient spruce to supply the wants of the settlers for a number of years; it is large and of good quality. The Roman Catholic Mission has a steam saw-mill and planing factory, where settlers may procure at a reasonable rate all the lumber they want for building purposes. In connection with the saw-mill, there is a grist-mill, and a wheel for shelling barley, which are of great service to the settlement. There is a portable saw-mill on Heart river, east of Wash creek.

I was unable to survey a large area of the land applied for, owing to the unusually high condition of the water resulting from three successive rainy seasons; on June 1 last, the level of Lesser Slave lake was about four feet higher than it was three years ago, and it rose another foot during the two following months.

The large expanse of low lands at the head of Lesser Slave lake, where in dry seasons the settlers cut hay, was all under water, two to three feet deep. At Willow point, where a small village had sprung up during the rush to the Klondike, in 1898, nearly all the houses were surrounded by water and were abandoned. I surveyed the lots on the north side of the street, as they had been occupied for a time, and some of the occupants had filed statutory declarations with the department. I did not survey the lots on the south side of the street, which had been occupied by a dozen squatters or more, as that portion was under water. It is doubtful if any of the original squatters in the village will ever ask for a grant of the land applied for, as every one has left the place and many have gone out of the country altogether.

Having completed all the surveys that could be made for the season at the head of the lake, I moved on September 18 from Big prairie to the Roman Catholic Mission, intending to proceed farther east the next day and survey a few lots on the north shore, as well as some at the lower end of the lake on my way down, but I was detained at the mission for nine days by east winds, five of which were stormy with rain, sleet, and snow. On Sunday, the 29th, the weather being fine and calm, we resumed our journey, rowing the boat, but a light westerly breeze in the afternoon enabled us to sail as far as Shaw creek before night; the next day the breeze increased and we reached the lower end of the lake early in the afternoon. I did not survey any lots on the north shore of the lake, as a few families of Half-breeds who had squatted at Shaw point and at Big point had all left; some have squatted on the Peace river and some at Grand prairie. Two or three lots were to have been surveyed at the lower end of the lake, but when I reached the place there was nothing but a narrow sandy ridge along the shores of the lake above water, and surveying was out of the question.

I reached Moose river, one of the tributaries of Lesser Slave river on October 1, and surveyed a lot for the only two squatters living between Athabaska Landing and Lesser Slave lake.

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I arrived at Athabaska Landing on the 4th, and intended to survey a small settlement at Baptiste lake, a few miles from the landing, but I was informed that the settlement was deserted, with the exception of two or three squatters who were not anxious to have the land surveyed.

There was no freighter to be had at the landing when I reached there; however, some arrived from Edmonton on the 6th, whom I hired, and we left the following day for Edmonton. I reached Edmonton on the 10th, and after having discharged the party and stored the outfit, left on the 14th and arrived at Ottawa on the 18th.

In concluding this report, I desire to record my appreciation of the very cheerful and efficient manner in which Mr. J. D. Craig performed the duties assigned to him as my assistant.

I have the honour to be, sir,
Your obedient servant,

ALBERT CHAS. TALBOT, *D.L.S.*

APPENDIX No. 23 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF JOS. E. ROSS, D.L.S.

SURVEYS IN RAILWAY BELT, BRITISH COLUMBIA.

KAMLOOPS, B.C., February 18, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I beg to submit the following report on the surveys performed by me in the railway belt in the province of British Columbia.

The following comprises the principal part of the season's operations: a traverse of Adams river and Adams lake, a traverse along the east side of the Columbia river above Revelstoke, and the survey of the railway belt on the west side of the Columbia river above Golden.

The main object of these surveys was to determine and mark the limit of the railway belt in order to ascertain whether timber berths and mineral claims, which had been taken up, or applied for, near the boundary, lay in Dominion or Provincial lands. Where traverses were made, any lands suitable for settlement were surveyed into sections and except, where impracticable, lines were run to all the nearest section corners; in rough and mountainous places, the section lines were marked by witness posts, usually planted near the shore line.

The remaining surveys consisted of the subdivision of townships where settlers had located, and partial surveys of provincial lots and connection of these lots with the Dominion lands survey.

Adams river, which flows from Adams lake to the Shuswap lake, with a total fall of about 200 feet, is about seven miles in length, two to four chains in width, and three to four feet in depth. It is navigable for timber at certain stages of the water, but in the flat lands near the mouth, there are a number of large jams of driftwood which would have to be removed. About half way down the river, there is a canyon where a good water power could be secured at a small cost. The timber along the river is in general not valuable as timber limits, but there is a considerable quantity of fir and bull pine of medium size. With the exception of a few small flats along the river, the land is not suitable for farming.

The portion of Adams lake lying within the belt is rather more than twenty miles in length. The width varies from half a mile to two miles, and the depth appears to be very great. The lake is surrounded by a hilly and mountainous country timbered with a great variety of small woods. Though the timber could not be classed as timber limits, there is a considerable quantity of small to medium sized fir. In the valley of Pass creek, which flows into a large bay on the west side of the lake, there is good timber and land. The valley is half a mile wide and trends to the north-west. The Homestake mine is situated in this valley, just within the limits of the belt. Sufficient development work has been done on this mine to prove that there is a large body of ore. It will probably be some time, however, before it becomes a working mine owing to the ore being low grade and to the lack of transportation facilities.

On the Columbia river, from Revelstoke to the boundary, the country is mountainous and fairly well timbered with hemlock and cedar. There is only a small extent of

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the timber valuable for lumbering purposes. This lies mostly in the cedar flats at the mouth of creeks which flow into the river. There is very little farming land in the valley. Only one settler so far has located here. The country is supposed to be fairly rich in minerals but, though there are numerous 'prospects,' no great extent of development work has been done. This perhaps is owing to the cost of transportation, of which the only means is by pack train. Last summer the citizens of Revelstoke built a steamboat which they expect to have running on the river the coming season. This, evidently, shows that they have faith in the country.

I intended to carry the boundary of the belt across the Carnes creek valley, but a bush fire prevented me from doing so. On the Columbia river, above Golden, I ran the boundary across several townships. I began the line near the Columbia river, ran over the Spillimasheen mountain, 3,000 feet high, and through the Spillimasheen valley to a range of high mountains. The boundary crosses the Spillimasheen at the junction of the north and middle forks of the river. The valley has been swept by fire and wind, and in consequence, the timber is lying in a mass of windfalls. In sections 4, 5, 7 and 8, township 23, range 19, west of the 5th meridian, there is a good timber limit of medium sized fir. On the middle fork, about two and a half miles above the junction, there is a fall of about 25 feet. The river is navigable for timber. The land in general is not suitable for farming. Comparatively poor progress was made on this survey, as considerable time was taken up in packing and cutting trails.

The surveys made to meet the requirements of the settlers were small and scattered. Land is now being taken up which a few years ago was considered altogether unsuitable for farming. Every patch of land, where a man can eke out an existence, is now being settled on. These settlers have a great many difficulties and drawbacks to contend against, such as lack of schools and roads.

On the surveys required in connection with provincial lots, a great deal of time is taken up in looking for corners and lines. In some cases, these marks are almost completely obliterated. In one case, I was unable to find any trace of the original survey.

The season was a very favourable one for surveying.

I have the honour to be, sir,
Your obedient servant,

JOS. E. ROSS, *D.L.S.*

APPENDIX No. 24 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF W. J. DEANS, D.L.S.

SURVEYS IN RAILWAY BELT, BRITISH COLUMBIA.

BRANDON, February 15, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to submit the following report on the work on which I was engaged during the past season in the railway belt, British Columbia. Your instructions of May 6 reached me on the 14th, and on the 20th I left Brandon for New Westminster at which place I arrived on May 23. I immediately organized a party and after procuring supplies left for Port Haney on May 29. The first work on which I was engaged consisted in making a resurvey of sections 31, 32 and the west half of section 33 in township 12 E.C.M. I found the greater part of sections 31 and 32 covered with water from two to three feet deep, the waters of the Fraser river having backed up and flooded all the low lands. These sections are subject to flood every year. The land is very low and covered with small willows and grass; considerable hay is cut on section 31 every year after high water. This section is fit only for pasture. Section 32 is much the same except the easterly half which is high and covered with small timber and windfalls. There is some good timber in this section. Having carried out your instructions regarding the surveys in township 12, I left Port Hammond on June 14 for North Bend. My work here was to renew the Canadian Pacific traverse along the railway from North Bend to Lytton and fix the position of all lots and reserves in the immediate vicinity of the railway. The Canadian Pacific Ry. follows the Fraser river from North Bend to Lytton, and is subject to many changes on account of slides and washouts. The original Canadian Pacific traverse was established shortly after the construction of the railway and the reference points were placed principally on telegraph poles. These poles have all been renewed and changed in many ways, so that all that remains to mark this original work is a few stubs of the telegraph poles. The switch posts and semaphores have also been moved. I intended if possible to start the renewal of the traverse at North Bend, but after a few days work in this part, I decided to go to Keefers and see if some definite mark could not be found there. Not finding any satisfactory reference point near Keefers, I moved camp to a point about two miles south of Lytton. I found the remains of a reference mark near the south boundary of section 35, township 14, range 27, west of the 6th meridian, and from this located station 706 on the traverse. I then ran the traverse backwards towards North Bend and was successful in finding the remains of quite a number of the original reference marks. I then ran the traverse, as in the original survey, from North Bend to Lytton. Having renewed the traverse between the north boundary of section 2, township 11, range 26, and the south boundary of section 35, township 14, range 27, west of the 6th meridian, I started to fix the positions of lots and Indian reserves in the vicinity of the renewed Canadian Pacific traverse. I had a great deal of trouble with these lots; the notes of the original survey do not close, and the marks on the ground have disappeared. In many cases the starting point was all that could be relied on, all other marks being destroyed. It is impossible to tell from the notes, if the traverse lines were intended

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as boundaries, or if the boundaries extend to streams or other natural boundaries. There are no offsets given in the notes to show that these lots were intended to run to the river and streams, yet it seems impossible that anything else was intended. The position of lots 5 and 6 as shown on the Yale sheet is too far south by nearly a mile. The Indian reserves are generally well marked on the ground and can be identified without any doubt. One of the Indians on No. 7 Siska Flat Indian reserve removed the post on the south boundary of the reserve to his house, so that it would not be destroyed as he explained. There is considerable good agricultural land in townships 11 and 12, range 26, west of the 6th meridian. I subdivided these lands, and from the inquiries made, I think there will be quite a settlement between North Bend and Keefers in the near future. These lands are well adapted for fruit culture, I think quite as good as the Niagara Peninsula in Ontario. Apples, plums, apricots, peaches, and berries are easily grown and attain great perfection. The market for fruit is good and the prices high. These lands also produce wheat of good quality and quantity. The Fraser river affords an abundance of salmon; and good wages may be made at certain seasons of the year, mining the bars.

The climate is good, sickness being almost unknown. Taking everything into consideration, this is certainly a very desirable place for settlers. I carried the surveys across the Fraser river at three points, near Kanaka Bar, at Keefers, and near Chamoux Siding. Any further work required in these townships will in all probability be an extension of these surveys, so that I did not consider it was necessary to place reference marks along the Yale and Cariboo wagon road. The weather during the past season was generally good, not much rain. Bush fires in August and heavy fogs in September and October caused me much inconvenience and some delay in carrying out the work.

Having finished the work required between North Bend and Lytton, and the weather being wet and unfavourable for further field operations, I decided that it would be unwise to attempt to stay out longer. Accordingly on November 4, I moved into North Bend, and the 5th with the party took the train for New Westminster, arriving there the same day. I paid the men off and stored the outfit, and on November 9 left for Brandon, at which place I arrived on the 12th.

I have the honour to be, sir,
Your obedient servant,

W. J. DEANS, *D.L.S.*

SESSIONAL PAPER No. 25

APPENDIX No. 25 TO THE REPORT OF THE SURVEYOR GENERAL.

ABSTRACT FROM REPORT OF A. O. WHEELER, D.L.S.

TOPOGRAPHICAL SURVEY OF THE SELKIRK MOUNTAINS.

A. O. Wheeler, D.L.S., received instructions early last season to make a topographical survey of the Selkirk mountains adjacent to the line of the Canadian Pacific railway, paying most attention to that portion in the vicinity of the summit, visited by tourists and mountain climbers during the summer months.

A topographical survey of the Rocky Mountains was commenced in 1887, using the photographic methods, and a triangulation extended up the Bow valley as a base for the camera operations.

This survey was expanded on either side to a considerable distance and carried over the summit to the Beaverfoot valley. It was discontinued at the close of the season of 1892, owing to Messrs. J. J. McArthur and W. S. Drewry, who were in charge of the work, being detailed to conduct similar operations in connection with the Alaska boundary survey.

A topographical map reaching nearly to the summit, has been published in sheets covering 10° of longitude by $7\frac{1}{2}^{\circ}$ of latitude or a block of about sixty square miles, but beyond this no finished map has been published.

It was intended to pick up this work where it had been discontinued and to commence operations in the Selkirks, the work to be subsequently connected with the general system of triangulation carried up the Bow and down the Kicking-horse valleys.

As a preliminary step in the work, Mr. Wheeler decided to make a hurried trip through the district in which his work lay, and on July 9 he started from Calgary for Revelstoke, taking with him an aneroid barometer and a prismatic compass.

He reached Revelstoke on the evening of June 11, after having stopped off for a short time at both Banff and Glacier House. The next day an examination was made of the long tangent on the Arrow Lakes Branch of the Canadian Pacific railway, which it was proposed to use as a base, and it was found that it would answer the purpose well, and that Mts. Mackenzie and Cartier would be excellent and easily accessible points from which to expand the triangulation to the east. On July 13, he joined two Canadian Pacific railway employees who were going on a prospecting trip up Mt. Mackenzie. Three days were thus occupied, and at the peak, the cairn erected by Mr. McArthur was found.

On the 16th, he started east along the railway, stopping at Greeley creek, Albert canyon, Illecillewaet, Laurie, Flat creek, Ross Peak siding and Cougar creek, and reaching Glacier House the next day where he remained for some days making several trips up the neighbouring mountains.

As a result of this preliminary trip it was decided to commence work at Albert Canyon village which is twenty-two miles from Revelstoke and twenty-five from the summit, and after getting together a party and outfit, they went under canvas at this place on July 8. From this camp as a base, excursions were made to the adjoining peaks. On July 9, an ascent was made along the trail up Moose creek to the summit of the high timbered ridge, south of the village. Here a temporary camp was pitched and the next day after making the rest of the ascent on foot, two stations were occupied on the high spur nearly due east of the village. The first station was at an altitude of

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7,276 feet and 5,049 feet above the railway which it overlooks. The second point was on the same ridge and overlooks the two branches of Moose creek, its elevation being 7,825 feet above sea-level.

While these stations were being occupied some of the party had established a signal on a prominent point on the north side of the river and also one on the railway a short distance westerly from the station.

On July 13 and 14, a trip was made up the north branch of the Illecillewaet, along the road leading to the Wellesley mine; after having reached a camp ground, the party divided, ascending on both sides of the valley to the crests of the slopes forming it. Two stations were occupied, that south-east of the stream being at an altitude of 5,640 feet and the one on the north at 7,047 feet.

The next points to be used lay across the main river, so camp was pitched in the thick timber on the opposite bank, and on July 16, 17 and 18, three stations were occupied, the first on the south side of the river, and the other two on the north side. While at this camp they met a party in the employ of the government who were opening a pack trail up Silver creek, in order to give access to the mineral deposits said to exist on some of its numerous branches.

On July 20, camp was moved ten miles westerly to Twin Butte siding, and at this place a station at an altitude of 6,996 feet was occupied.

On July 24, camp was taken to the westerly of the Twin creeks, and next day a station on the ridge adjoining the northerly of the Albert peaks was occupied.

Camp was moved on July 29 to an old mill site at Greeley creek, six miles from Revelstoke and the remainder of the month was spent on the ridges to the east of Greeley creek, and between it and the Twin creeks. Three stations were occupied at elevations of 7,241, 7,568 and 7,749 feet.

The Illecillewaet was crossed and camp pitched in the woods on the opposite bank on August 2, and in this neighbourhood work was carried on until the 8th when a move was made to Revelstoke.

The camp at this last place was located about three miles from town and was convenient to the tangent on the Arrow Lakes Branch of the Canadian Pacific Railway on which a base slightly under five miles in length was measured on August 12, 13 and 14.

It was in this locality that the work was first delayed by smoke from bush fires which were raging in the Columbia valley, and the party was eventually obliged to leave before obtaining the necessary photographs and angular readings.

From here they moved to the summit of the Selkirks, the outfit and party being transported by rail. The first ascent made here was of Mount Avalanche which they climbed on the 28th and on the following day the westerly of the Twin peaks was occupied.

On the last day of August an ascent of Mount Sir Donald was made. Mr. Wheeler, besides having his own assistants, was accompanied on this occasion by two Swiss guides who were resident during the summer months at Glacier House.

Work in this neighbourhood was continued until about the middle of September when a trip was made to Beaver mouth where a few days were spent.

From September 18 to 20 they climbed and occupied stations upon three minor points around the Rogers Pass summit on Mounts Grizzly, Napoleon, and the northwest corner of Mount Cheops. Bear creek was explored to its head with the intention of making an ascent of the peak immediately to the north of the divide between this stream and Cougar creek, but broken weather prevented this route being used.

From the 23rd to 28th was spent at Illecillewaet station and Laurie mining camp, but owing to rain, clouds and snow on the upper slopes, only one ascent was possible, and but one station was occupied.

The only other ascent made near the Rogers Pass summit was that of Mount Abbot where a station at an altitude of 7,710 feet was occupied, at the crest of the long ridge usually ascended from Glacier House. During the first five days in October the weather remained fine and stations were occupied from Illecillewaet village eastward.

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This practically closed the survey, and on October 8 the bulk of the outfit, the ponies and two members of the party were sent east to Calgary, while Mr. Wheeler and two men returned to Albert Canyon, where angular readings were taken on the signals lying to the east of that point, and a day or two later the angles at each end of the base near Revelstoke were obtained.

During the course of the survey the differences of elevation between the railway and the river at every mile post between Albert Canyon and Revelstoke had been taken, and as a continuation of this similar elevations from Revelstoke to Beavermouth were taken on October 13, 14 and 15 thus completing the field work of the survey.

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APPENDIX No. 26 TO THE REPORT OF THE SURVEYOR GENERAL.

REPORT OF ARTHUR SAINT-CYR, D.L.S.

SURVEY OF A PART OF THE BOUNDARY LINE BETWEEN BRITISH COLUMBIA AND YUKON TERRITORY.

OTTAWA, March 29, 1902.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa.

SIR,—I have the honour to submit the report of my operations during the past season. On July 15, you directed me to continue the survey of the boundary line between the province of British Columbia and the Yukon Territory in conformity with the instructions of the previous year.

I first wrote Mr. Jas. E. Beatty, who was supposed to be in Whitehorse, Y.T., that he had been appointed assistant on my party and requested him to meet me at Caribou crossing. It is unfortunate that Mr. Beatty was unable to inform me at the time of his inability to join the party, as the absence of a capable assistant on survey work such as that on which I was engaged, leaves every detail to the care of the surveyor in charge, who cannot always personally direct his men. If men are unaccustomed to the work, however willing they may be, they will at times make blunders that cause delays which are serious in a country where the working season is so short.

I left Ottawa on July 19 and arrived at Vancouver on the 23rd. My party was soon organized, and on the 26th, we took passage on the Canadian Pacific steamer *Hatting* for Skagway, Alaska, where we arrived four days later. Caribou crossing was reached on August 3, and preparations were made to proceed at once to Windy Arm where you had instructed me to observe for latitude. We camped there on the 5th of the month. The weather had been unsettled since our arrival in the country, but on the 5th, it cleared sufficiently to render astronomical work possible, and on the 6th I was favoured for my latitudinal observation with a clear and calm night. As my 'star list' had been prepared beforehand, I was at liberty during the day to test the several adjustments of the instrument and to reduce the errors to as small a quantity as possible.

Description of the instrument used for the astronomical work.

The instrument used for the observations is a transit of aluminium alloy made by Stanley, London, and specially constructed for the determination of latitude by the Talcott method. The telescope is provided with a micrometer eye-piece, and carries at right angles with its horizontal axis, a special attachment holding a delicate level used solely when observations for latitude are made. A detachable arm, which is made to slip over the axis of the telescope to which it may be clamped, replaces the vernier arm whose clip-screws must then be released. This arm is provided with a clamp and a fine slow-motion screw. By this arrangement, the telescope with the fine latitude level may be moved bodily without in any way disturbing the relative position of the level with the longitudinal axis of the telescope. The fine slow-motion screw, which is placed near the lower end of the detachable arm where it rests against a projection from one of the standards, is intended to be used in the exceptional case when, after reversing the instrument 180° in azimuth, the bubble should happen to run close to the

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end of the level, in which case it would have to be made to play near the desired position. In order to insure greater stability, the vertical axis of the transit has been made longer than is usual in this class of instrument. The object-glass has a clear aperture of one and three-fourths of an inch. The strongest eye-piece (60) was used for all star observations. As the altitude of my station was 2,000 feet above the level of the sea, stars as low as magnitude $5\frac{1}{2}$ could generally be observed. For convenience of observing, the telescope is supplied with a long diagonal eye-piece. The small oil lamp, which serves at night to illuminate the cross-hairs and graduated scale in the micrometer eye-piece, was found to be a constant source of annoyance, especially in unsheltered positions, on account of its irregular and reddish light which very often eclipsed the faint stars. For this and other reasons it was discarded altogether and the illumination was obtained from a small electrical battery, which weighs less than one pound. It rested on a support erected near the transit and the electricity was conveyed in the ordinary way to a small glass bulb facing the perforated axis of the telescope, where it was held in position by a special light device attached to the standard. When the light was not in use, as between each of the observations, the electric current was cut off, thus allowing the battery time to recuperate during the interval. To temper the light so as to suit stars of different degrees of faintness, glass shades of green colour were used and proved very satisfactory.

Every precaution was taken to insure the stability of the instrument; the tripod rested on hubs driven deep into the ground, and a weight was suspended from its centre. The fine latitude level used is chambered and its tube is graduated into sixty divisions numbered consecutively. When attached to the transit, the zero end of the graduation was nearest to the eye-piece of the telescope. In determining the value of one division of this level, I used the level-trier in the government observatory in Ottawa. The temperature at which the determination was made was recorded and every precaution was taken to insure accuracy in the results. The micrometer screw of the level-trier was revolved an even number of divisions and the resulting motions of the bubble recorded. After it had thus been made to run successively from one end of the tube to the other, a second series of readings was taken in the reverse order. The mean value of one division of the level was found to be $1''\cdot6$ for temperature 59° Far. This result was verified by Messrs. Fauthe & Co., Washington, U.S., who tested the level by means of their special level-trier.

The filar micrometer inserted in the common focus of the object-glass and eyeglass is composed of a sliding frame supporting a fine spider web. Motion is communicated to the frame by means of a finely threaded screw whose head is divided into one hundred equal parts. With this device, small differences of zenith distances may be accurately measured. On a glass scale placed at one side of the field of view are etched forty divisions, each equivalent to one turn of the micrometer, whose head is also divided into one hundred parts. This scale, therefore, indicates at any time the number of revolutions. By using the highest optical power provided for the instrument, the width of the field of the telescope was materially reduced, so that I had to choose stars whose difference of zenith distance was less than forty-five minutes of arc. Before commencing the observations for the value of one turn of the micrometer, the telescope was carefully adjusted to sidereal focus. This adjustment was never disturbed during the whole series of observations. The value of one revolution of the micrometer screw was determined by recording the times of transit of Polaris (near eastern elongation) across the movable thread, which after each observation was moved forward half a turn. Since it requires nearly three seconds of time for the star to move a second of arc in altitude, the accuracy of the results is greatly enhanced by this method. Frequent readings of the level were taken in connection with these observations and corrections due to its changes were applied to the results. As one turn of the screw has a rather large angular value, I deemed it advisable to observe the passage of the star across the movable thread at every half turn. This series of observations and the resulting mean value of one turn of the micrometer are recorded below, with the readings of the level.

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August 5, 1901. Observation made on Polaris near E. elongation for determining the value of one turn of the micrometer.

Place: Station C, on western shore of Windy Arm, B.C. Latitude 60°.

Note: The micrometer head is divided into 100 divisions. The level is graduated consecutively from end to end. The zero is nearest to the eye-piece; one division of the level = 1".6;

Chronometer time of elongation 19 34 32. Temperature 50.

Turns.	Chronometer Time.	LEVEL.		CORRECTIONS.		Corrected Time.	Time of ten $\frac{1}{2}$ Revolutions*.
		N.	S.	For Curvature.	For Level.		
25	h. m. s.			s.	s.	h. m. s.	m. s.
25	20 27 30	36 5	26 3	27	6 2	20 26 56 8	52 16 7
24 5	22 10			19 7	5 9	21 44 4	17 9
24	16 50			13 8	5 5	16 30 7	18 5
23 5	11 32			9 2	5 1	11 17 7	19 5
23	6 43 5	36 2	26 0	5 9	4 7	6 02 9	18 1
22 5	20 00 57			3 3	4 5	20 00 49 2	18 9
22	19 55 41			1 8	4 2	19 55 35 7	18 1
21 5	50 26			0 7	3 9	50 21 4	18 2
21	45 11	36 0	25 8	0 2	3 7	45 07 6	17 4
20 5	39 57			0 0	3 3	39 53 7	18 3
20	34 43			0 0	2 9	19 34 40 1	s.
19 5	29 29	35 8	25 5	0 0	2 5	19 29 26 5	181 6
19	24 14			+0 2	2 0	24 12 2	
18 5	18 50			0 7	1 5	18 58 2	
18	13 44	35 5	25 2	1 8	1 5	13 44 8	
17 5	8 28			3 3	1 1	8 30 3	
17	19 3 12	15 5	25 2	5 9	1 1	19 03 16 9	
16 5	18 57 55			13 8	0 6	18 58 03 2	
16	52 37			19 7	-0 3	52 50 2	
15 5	47 16	35 3	25 0	+27 0	0 0	47 33 4	
15	18 41 55					18 42 22	

m. s.
 1/2 of 52 18' 16" = 313.816 s. time.
 1' 18' 27" = 24 arc.
 Log. sin. 1' 18' 27" = 8.3582948
 Log cos 8
 = 8.3288829
 Log sin $\frac{1}{2}$
 = 6.6871907
 100° - 373
 100° - 373 \times 2 = 200° 7 46
 — 072 refraction
 200° - 674
 Chronometer was gaining 3.5 s. in
 24 hours. Correction for it is
 therefore inappreciable.

* These results were obtained by subtracting the corrected time of the 20th turn from that of the 25th turn; the 19 54th turn from the 24 5th turn, &c.

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In every observation for latitude, the bisection of the star was perfected at the instant of culmination, which time was called by my recorder who kept in front of him the chronometer and the star list on which the computed chronometer time of culmination of each star had previously been arranged. The stars were observed in pairs, one culminating north and the other south, and they were chosen so that, with one exception, all those observed have a zenith distance less than twelve degrees.

The star list was made from the Berliner Jahrbuch for the year 1901. The apparent places of the stars used were, wherever so given, taken directly from the table and interpolated for the date on which the observations were made. The places of a few stars used in the list had, however, to be reduced from their mean to their apparent places by the following formulæ:—

App. R.A. = R.A. 1901.0 + $tm + f + g \sin (G + \alpha) \tan \delta + h \sin (H + \alpha) \sec \delta + [f' + g' \sin (G' + \alpha) \tan \delta]$.

App. Decl. = Decl. 1901.0 + $tm' + g \cos (G + \alpha) + h \cos (H + \alpha) \sin \delta + i \cos \delta + [g' \cos (G' + \alpha)]$.

The value of the last term in each form, amounting generally to a small fraction of a second, was, for that reason, neglected in the final result.

I append herewith the record of the observations made on August 6 on 13 pairs of stars, on the west shore of Windy arm for the determination of the 60th parallel at the astronomical station G.

OBSERVATIONS FOR LATITUDE

At the western shore of Windy Arm, Station G, August 6, 1901.

Aneroid Barometer 27.8; Temperature 52°. Calm and bright night.

Stars from Berliner Jahrbuch.	N or S	Readings, Micro-meter.	LEVEL.		Declination.	CORRECTIONS.		Refract.	Latitude.
			N.	S.		Micro.	Level.		
β Draconis	S	25.20	23.3	33.5	52 22 46 98	-17 32 03	+1.40	-0.31	59 59 58.86
f "	N	14.715	35.3	25.6	68 12 12.61				
w "	N	17.20	35.5	25.3	68 48 32.85	-9 26 90	+0.64	-0.17	59 59 60.31
y "	S	22.85	24.5	34.7	31 30 20.63				
δ Ursæ Min.	N	21.08	34.3	24.0	86 37 07.47	+3 48 77	+0.72	+0.08	59 02
β Lyreæ	S	18.80	23.0	33.5	33 15 11.42				
δ Draconis	N	13.80	34.0	23.8	67 29 35.09	-20 35.15	-2.20	-0.36	54 39
χ Cygni	S	26.11	26.5	36.8	53 11 29.19				
θ "	S	20.10	25.8	36.0	49 59 50.80	-0 35.12	+0.68	-0.01	59.23
ϵ Draconis	N	19.75	37.0	26.5	79 01 16.66				
θ Cephei	N	21.63	38.5	28.0	62 39 59.44	+3 05.62	+1.00	+0.05	59.60
6 H "	S	19.18	26.7	37.3	57 13 46.42				
π Cygni	S	26.365	25.0	35.6	48 51 22.46	-21 28 83	-0.52	-0.39	54.65
24 Cephei	N	13.52	35.0	24.3	71 51 26.31				
4 Cassiopeiæ	N	16.85	37.2	26.7	61 44 31.17	-10 28.11	-2.16	-0.18	55.56
β "	S	23.11	29.3	40.0	58 36 20.84				
χ "	N	22.865	35.0	24.2	62 23 11.87	+9 38.44	-1.84	+0.16	59.19
y "	S	17.10	26.5	37.3	57 17 32.98				
δ "	N	20.745	37.5	26.5	60 10 53.90	+2 50.06	+2.00	+0.06	57.84
y "	S	19.05	24.0	35.0	59 43 17.55				
ν Persei	S	20.45	26.7	38.0	48 07 40.06	-2 05.42	-0.48	-0.03	58.37
30 Cassiopeiæ	N	19.29	37.5	26.0	71 56 28.54				
ϵ "	N	19.25	37.2	26.0	66 57 21.60	-2 14.45	-0.44	-0.04	57.98
ν Persei	S	20.59	26.5	37.8	53 07 04.22				
α "	S	24.475	26.8	38.0	49 30 27.77	-15 59.72	+0.60	-0.28	58.19
5 H Camelopardis	N	14.81	38.8	27.5	71 01 27.40				

Mean Latitude 59° 59' 57.94"
Probable error of mean 0.356"

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The final result for the latitude of the station, where the astronomical observations were made, is the arithmetical mean of all the determinations made at that station.

During the time occupied in taking the observations, the men had not been idle. Supplies had been packed into the mountains east and west of Windy arm. When this work was well under way, a few men were set at opening the line through the bush, whilst others were erecting the monuments and delivering posts wherever required for the final delimitation of the boundary. This part of the work was completed by August 27; we then returned to Caribou crossing.

Method of survey and description of the country crossed by the 60th Parallel, between lake Bennett and the Takhini river.

At Caribou crossing, four men were put in charge of the pack animals and instructed to proceed with the least delay to the western extremity of West arm (lake Bennett), distant thirty miles from Caribou crossing by the road followed with the horses. There being no trail of any description between the two places, they had to make their way as best they could, but as I was not expected to reach West arm with the survey ere several days had elapsed, it gave them sufficient time to bring the outfit safely over the rough ground and across the Watson and Wheaton rivers, which they had to pass shortly after leaving the railway station.

The beds of these streams are dangerous quicksands and as, at this time of the year, the water was too low for swimming the horses, the men were cautioned to ferry them over on rafts.

I formed two parties out of the remaining men. One, with boats, carrying a camping outfit and supplies, was to gain the entrance to West arm, thence following its southern shore, enter Munroe lake with which it is connected by a rapid stream. They were instructed to keep a sharp lookout for me so that I could signal to them from the top of the mountain showing where the line ran both east and west of Munroe lake and also where it crossed the crest of the mountains to the west of this lake.

With the rest of the men, I went by water to astronomical station H, established on the eastern shore of lake Bennett by Mr. G. White-Fraser in 1899. We arrived there in the afternoon of September 2, and the next day, the first tangent on this new section of the boundary was produced due west across lake Bennett (three quarters of a mile wide) and up the steep and rugged slope of the Bennett mountains. The first station on this line was established on a small plateau at the extremity of a spur from the main range. This plateau is the only suitable place for a monument between the western shore of Lake Bennett and the top of the mountains. It is three-quarters of a mile distant from the lake and 2,225 feet above it. From this spur to the point where the line crosses the range (5,930 feet above the sea) is a further distance of three quarters of a mile. We arrived at the summit early enough in the afternoon to have produced the line the same day as far as Munroe lake had the advance party been on hand at the appointed place. But I could see nothing of them in the valley below. Hoping still to finish the work the same day and avoid a second climb of the mountain, I waited on the summit till long after the sun had set. But the men did not appear, so that we had to return to our camp at Lake Bennett, feeling greatly disappointed. Next morning at day break, we were climbing again, but this time carrying our blankets, for we were resolved to remain on top over night rather than have to make the ascent of this mountain a third time. On our arrival at the summit, we erected on a high cliff a large flag to let the other party know that we were ready to give them the direction of the line. At 10 o'clock, no one having yet come in sight, I dispatched two of the men who had accompanied me, to the valley below. They were to find a way through the crags and deep ravines which form the western slope of these mountains and to continue through a forest to the shore of Munroe lake, which we could plainly see from our high station. After the location of the line was established, they remained in the valley till we called for them with our boats which came by way of the west arm

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of Lake Bennett. By 6 o'clock, the work was completed, and on the following night, we were again all re-united at Munroe lake. From the summit of the Bennett mountains, distant 183 chains from astronomical station H, I deflected the line by an angle of six minutes and forty-five seconds to the north. Munroe lake is three and three-quarter miles long by one-third of a mile wide, and is very deep; it is fed by numerous mountain streams rising in glaciers south of the line. It empties into the west arm through a shallow stream less than half a mile long. The line intersects Munroe lake at half a mile from its southern extremity, where the land which adjoins it is boggy and partly covered by alders. Half a mile farther, there is, however, good timber, mostly spruce and pine. This forest extends along the eastern side of the lake and up the western slope of the Bennett mountains, where at an elevation of about five hundred feet above the lake, the spruce and pine are replaced by groves of balsam of large size. At the time of the survey, a logging camp was in operation near the south end of the lake, and the logs after being floated to West arm, were towed across it to Mill-haven, where there was a sawmill in operation.

Another day was spent in producing the line from Munroe lake to the summit of the next range, which is called Brown mountains (altitude 5,635') and which is the western limit of the watershed of Munroe lake. From Brown mountain, where the line is again deflected north by three minutes, a good view of West arm is obtained. Its southern shore near its entrance into Lake Bennett is formed of a high terrace between which and the foot of the mountains nestles a lake high above the level of Lake Bennett.

On September 7, the line had been successfully carried across Latreille creek, and on to the farthest visible point on the line, which is a mass of ice, on the northern side of Munroe peak (altitude 6,735'), two miles west of Brown mountain. Between these two mountains, there is a deep valley which is quite devoid of timber where the boundary crosses it. Latreille creek flows northerly through this valley for about two and a half miles from the boundary, then turns easterly and empties into the northern end of Munroe lake.

Beyond Brown mountain, the country is a chaos of formidable peaks with spurs curving in all directions and forming vast amphitheatres partly filled with glistening ice-fields, whose surface is rent by wide and sometimes very deep fissures, across which it would have been unwise to venture, there being at that season not enough of the previous winter's snow left to insure a good footing. To have gone into these mountains with the outfit would have imposed on the party a great deal of hardship and possibly unprofitable work. To avoid these dangerous mountains, we went by Munroe lake and West arm to the mouth of West Arm river, hoping to find this range more accessible from the western side. But here too, the mountains appeared to be impassable, the most forbidding amongst them being Cleft mountain, a bold mass with almost perpendicular sides. We camped for the night near the mouth of the above mentioned river. In the morning, we began preparations for our next trip. As the party in charge of the pack animals had not yet arrived at this, the appointed place of meeting, I left instructions that as soon as the horses had rested, they should go westward up along Crozier creek to the mouth of MacAuley creek and cache their supplies at that point. Two men were left here with instructions to proceed to Lake Partridge, distant four and a half miles from our camp, and keep a sharp lookout for our appearance on the crest of Cleft mountain and mark the line on both shores of Lake Partridge.

Early the next morning, we were travelling in the direction of Munroe peak, where our last station on the line had been established a few days before. After crossing several wide branches of West Arm river, we reached a pine flat which afforded us fair travelling; then we struck Lemieux creek, a mountain stream coming from the south-east: we followed its bank for three-quarters of a mile when we were confronted by a very imposing canyon, and it looked now as if our progress in that direction would end. To the south rose clusters of immense crags, on top of which grew a few scrubby

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trees. Although the opposite side of the canyon appeared to be almost as rough, we made the attempt, and after climbing a succession of terraces we soon stood 2,500 feet above the valley. We travelled south-east along the base of a mountain, keeping up nearly the same altitude and avoiding by so doing the widest and deepest sections of the ravines. After crossing many rock slides we came out of the gorge which here widens out into a valley where all the timber has been fire-killed. We camped by Lemieux creek, the same stream we had followed up to the canyon early in the day. The next morning, we started for the last station on Munroe peak, but we met with so many obstacles that it was late in the afternoon before we came in sight of it. Here, we discovered that the route which had been followed by Alexander Munroe when setting his signal, had become impracticable, the little snow which had enabled him to get to the glacier having since totally disappeared under the rays of the sun. I had to look for another route, and when I at last stood at the station, the sun had already set, but we succeeded in running the line that night as far as a ridge overlooking the valley in which we had camped. Next day, the line (deflected north by four minutes and thirty seconds) was marked at the intersection of Lemieux creek and also on the crest of Cleft mountain, where a long base to be used in determining its distance from the western shore of Lake Partridge was measured. In the afternoon, the line was produced to its intersection with the western shore of the lake, where it struck one hundred and forty-two feet from the 60th parallel. This completed the preliminary survey of the boundary for a distance of twelve miles from Lake Bennett westward to astronomical station J.

Lake Partridge to Primrose River.

West of Lake Partridge, the general character of the country crossed by the boundary presented greater difficulties than in the section previously surveyed. Pack animals could not be used, so we had to take with us a camping outfit and sufficient supplies to carry the survey across the mountains.

After leaving station J (post 102), the first point reached on the line was a crag whose summit is 1,200 feet above the lake, which is visible from the post. It would, therefore, have been an ideal location for a monument, but on closer examination, it was found that where the line intersected it, its crest was a mere knife-edge of ragged rock, too narrow to build a cairn on. A picket was, however, left here as a temporary mark and the survey continued in a westerly direction. From this picket, the line drops four hundred feet into a narrow valley inclosed between high mountains with steep slopes and, for two miles west, follows up this valley, which is then abruptly terminated by an unbroken line of cliffs, eight hundred feet high. A glacier, whose main body lies in the south-west angle of this valley, extends along the foot of this wall. A stream which drains numerous ponds at the base of the glacier, flows eastward through this valley, and after making its way through a canyon, one mile from its head, joins Lake Partridge a quarter of a mile south of the boundary line.

On September 22, we camped in the western end of the valley within sight of this obstacle, and the next day, after several vain attempts to overcome it, we had to turn in a southerly direction and follow the edge of the glacier. After a difficult climb of several hours, we stood on the crest (6,250 feet above the sea) of this barrier, but only to find ourselves on the top of a narrow plateau covered with newly fallen snow, a foot deep, and in a dense fog which prevented further progress for the time. The damp south-westerly wind, which then prevailed, appeared to be the principal cause of the fog, which detained us here for two days, the fog lifting only occasionally for a very short time, just enough to show that we were surrounded by dangerous slopes and precipices. During this time, we had to sleep in the snow exposed to the fierce blasts of the storm. Finally, near noon, on the 25th, the wind veered to the north, and by 3 o'clock, the fog had cleared away. Then we saw that the plateau on which we stood sloped off suddenly to a large glacier to the north. This at first sight appeared to afford

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the only safe way to the valley below, and on that assumption, some of the party began its descent by cutting steps on its icy surface. But it soon became evident that this operation would require hours of arduous and risky work, for the difficulties met in travelling over glaciers increase with the descent, both on account of the fissures which become wider and the increased steepness of its surfaces which at the foot of the glacier frequently end in a sheer drop. We then turned our attention to a careful examination of the different 'couloirs' opening from the plateau, till on the western edge we found one down which we let ourselves; from ledge to ledge, instruments and baggage were successfully lowered by means of ropes. This descent of 1,800 feet cost us several hours of hard work and anxiety. On reaching the foot, we found ourselves on a succession of glacier moraines covering the whole bottom of the valley and interspersed by numerous ponds. Several creeks take their rise here, some flowing into MacAuley creek, whilst others flow towards the south-east. We travelled west through this valley till dark, when we bivouacked near the foot of another large glacier in front of us. Here, the waters from the ponds at the foot of this glacier flow both north and south, those running north joining Boudette creek, one of the tributaries of Wheaton river, which after a very devious course, empties into Lake Bennett at a point three miles north of the entrance to West arm. The waters flowing south finally empty into the southern end of Lake Partridge.

From this camp, I sent a man to a cache of provisions which he had helped to build at the junction of Crozier and MacAuley creeks. He also took a message to the head packer, who was supposed to be at the cache, to bring us supplies, and firewood, of which we were sorely in need.

After leaving Lake Partridge, no timber is to be found within several miles of the boundary line. To the bodily discomfort caused by the lack of fuel at this season was soon to be added the lack of sufficient food supplies, for the man I had dispatched with the message to the head packer, lost his way through the mountains, and after roaming along the Wheaton river, arrived at the cache only on the third day, and in an exhausted condition. More unavoidable delays occurred both at the cache and on the road to our camp, so that when the pack train arrived, our diet for several days had consisted of uncooked rolled oats, a very strong food no doubt, but one which can hardly be relished when exclusively used at every meal.

In the meantime, the line had been, at 226.70 chains west of Lake Partridge, deflected north eight minutes and thirty seconds, and produced across the valley and glacier mentioned, and thence to a very high peak at the western end of a range of mountains running along the north side of the line to Primrose river, an important tributary of Takhini river. From this peak, where another deflection of three minutes was made, the line runs diagonally across a wide valley whose waters empty into Primrose river, less than a quarter of a mile north of the line. On the south side, two smaller valleys hardly one mile apart and running parallel, carry streams of water from glaciers farther south. On joining the main valley, these streams run in opposite directions; the most easterly is Jones creek flowing towards the south-east, whilst Radelet creek turns westerly towards the Primrose river which it joins after rushing through a canyon and dropping several hundred feet to the valley below.

After intersecting Radelet creek, a third deflection amounting to eleven minutes north is made in the line which now ascends the northern slope of rough mountains till it reaches an altitude of 4,940 feet above the sea. Looking west from this point, Primrose river lies in a valley below. It runs northwards and at about one and a half miles from the boundary, it expands into Lake Primrose, a shallow body of water (altitude 3,510 feet above the sea) averaging half a mile in width. Its contour has been mapped from photographs taken from my highest stations in the mountains east and west of the lake, and also from vertical measurements made with the transit, but its total length remains undetermined, for, at about ten miles north of the boundary line, it curves around the base of a high mountain which hides it from view. Primrose river is 375 yards wide on the boundary and during high water must be a formidable stream.

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It heads from extensive ice fields south of the line. A large, sparsely timbered flat, about half a mile wide, extends along the eastern bank of the river, both north and south of the line. The distance between station 'J' (post 102), and station 'K' (post 114), is thirteen miles and a quarter.

Fire has destroyed what timber there was on the western side of the river in the vicinity of the boundary. Farther north and west of Lake Primrose, there are still groves of spruce and pine which, owing to the boggy ground between the lake and the foot of the mountains, have been protected from fire.

From Primrose River to Takhini River.

From station K (post 114) the survey of the boundary was carried across Primrose river and continued along the eastern slope of high mountains which separate its valley from that of the Takhini.

At one mile and a quarter west of this post, the line strikes the crest of a ridge, where we erected a stone cairn. West of the ridge, we had to cross a glacier three-quarters of a mile wide to reach a higher spur (3,265 feet above the valley) on the line, where we also erected a cairn. Both of these cairns are visible from the valley of Primrose river. Between this spur and the summit of the range (7,025 feet above the sea) there is another glacier flowing north across the line. From the summit, we had a wonderful view of the surrounding country and mountains, the whole clothed with a thick and uniform covering of newly fallen snow in the midst of which there appeared blue patches of ice, and the black walls between which the ice rivers wind their course.

Rothwell peak, one-quarter of a mile south of the line, is the highest (7,470 feet above the sea) in the neighbourhood; it is surrounded by immense ice fields and forms a remarkable land-mark.

On the summit, we built a monument. West of this is a third glacier lying at the bottom of a valley so deep that the rays of the sun very seldom reach its lowest level which remains filled with large blocks of ice. One mile and a half beyond this chasm and precisely on the line, rises a lofty mountain capped by an overhanging mass of ice of great thickness, the most formidable obstacle yet met on the line. Throughout this ice, numerous wide fissures could plainly be seen.

Over this ice-cap, I tried on October 8, to run the line. We had just had a severe snow storm and the men who had to take the line were, therefore, cautioned to exercise the utmost care in travelling over this treacherous glacier, which appeared to be honey-combed by crevices, possibly covered on top by a thin sheet of recently drifted snow, which would barely carry a man.

To get to the mountain, they had to travel a few miles in a southerly direction. Four hours after their departure, they could be seen wending their way along the base of the ice-fields and, as we thought, searching for a suitable place from which to begin the ascent. A fierce wind was blowing at the time lifting the light snow in great clouds which occasionally hid them entirely from view and interfered seriously with our signals. They were, however, moving slowly towards the line from which they did not appear to be more than one hundred feet distant when they unexpectedly stopped, and although we signalled to them for nearly three hours, they never got any nearer to it. They had, however, raised a flag pole, from which I had already measured the angle to the line. By ascertaining the distance between my station and this picket, I could easily have calculated the proper offset from the flag-pole and could thus have located the line later on; but just as they were leaving the peak to return to camp, I noticed to my dismay that they were carrying away the picket. This unfortunate affair left us without any mark from which to resume the survey later on. Another attempt was made the next day but a thick fog settled down just as we got near the top of the peak, and though we stood on this peak for several hours, the fog never lifted sufficiently to allow us to complete the work. The weather remaining unsettled, I saw the uselessness for the present of trying to continue the survey of these altitudes.

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In our last ascent, I had through the occasional lifting of the mist, got a glimpse of a deep valley lying south-west of the line, and which did not appear to be very distant. I conjectured that it must be either the valley of the Takhini or of one of its tributaries. This discovery made me hope that it might still be possible to carry the survey as far as the river. It was imperative that this piece of work should be completed now; if not, it would have necessitated a special journey all the way from Lake Bennett merely to survey these four miles or so. The mountains to the west of the Takhini being so rough, it would be impossible to take pack animals over them, therefore, the party would have to retrace their steps to Lake Bennett and travel round by Haines mission and up the Dalton trail to take up the survey on the Alsek river and work eastward from that point.

On October 10, we broke camp on Primrose river and travelled for several miles northward along the foot of the range west of Lake Primrose, searching for a pass by which we could cross these mountains. When nearly three miles and a half north of the boundary, we found a recently blazed trail which on being followed, took us to a valley coming from the west. It proved to be the one used by Mr. G. White-Fraser, in 1900. In less than a mile, we rose to an altitude of two thousand feet, a pretty stiff climb for pack animals, but the trail improved considerably after we had passed the timber line. We then followed a stream as far as the foot of a glacier, stopping once on the way to photograph a remarkably bold and high bluff standing north of the pass.

The valley which leads from Lake Primrose to the summit of this pass is blocked at the upper end by an impassable glacier. This necessitated leading the horses high up to the mountain side over very difficult rocky ground.

Beyond the summit, we came to a large glacial lake with bold cliffs dropping sheer to the water's edge on the southern side, while from the opposite shore spread a flat country easy to travel. The outlet of this lake is a small creek which meanders across a plateau three miles wide. It tumbles down in cascades over an escarpment three thousand feet high, then across a flat area one-quarter of a mile wide into the Takhini. Seeing the impossibility of reaching the valley below on account of this escarpment, I followed its edge southward for several miles looking for a place where we could get the horses to the valley, but without success. It would seem strange that in that distance not a single gulch could be found leading into the deep valley affording drainage to the plateau, but such is the case, for the water at many places could be heard trickling through the broken stones many feet below the surface. Satisfied at last that there was no probability of finding a suitable descent, I sent the pack horses back to Primrose valley, instructing the men to wait there till my return, but kept three mules, and managed to get them down, though at several particularly bad places, they had to go light. We bivouacked one and a half miles south of the boundary. While camped there, it rained hard for four days; in the surrounding mountains the snow line crept every day lower and lower till at last the snow invaded the valley where after the storm it covered the ground to a depth of a foot. It was then the 20th of October, and I was afraid that after all our toil we might not finish the work. We were entrapped in this gorge with alarming signs of winter all around us, and I realized that if this bad weather continued it would go hard with the party before we could reach Lake Bennett again.

After the violence of the storm had subsided we moved camp to the top of the mountains. This was rendered necessary for the time during which the line was produced westward from where we had left off on the 8th of October. Solar observations had to be made before the line could be run on the proper azimuth to the valley of the Takhini river. The only deflection in this line occurs at the summit, 224 chains west of Station 'K' and amounts to eight minutes and twenty-five seconds north. The elevation of this valley at the boundary is only two thousand four hundred and seventy-five feet above the sea, being nearly one thousand feet lower than Primrose river (3,510 feet above the sea). From the above, I am led to believe that unless both valleys join farther north than the configuration of the country seems to indicate, there must

exist on the lower reach of Primrose river some great cascades or falls between its outlet from Lake Primrose and confluence with the Takhini. This river, which also flows north, meanders in numerous channels through a valley nearly three-quarters of a mile wide at the boundary. Between its eastern bank and the foot of the high escarpments, the ground is generally high and gravelly and principally timbered with young poplar and balsam of gilead. A narrow belt of spruce trees is found along the river banks.

On the western side are numerous lakes caused by the overflow of the river. These are connected with marshes spreading from the river to the foot of the lofty range limiting the valley in that direction.

A short distance south of the boundary, the valley narrows, and the river, now a single stream, rushes between high embankments formed by the terminal moraines of many lateral glaciers. These embankments extend to the head of the river which takes its rise in large ice fields lying in the mountain range which divides the waters running north from those flowing towards the Pacific ocean.

The method followed for the final location of the boundary is that adopted since the inception of the survey. It has been fully detailed in my previous reports and need not be repeated here.

The section of the boundary included between Primrose and Takhini rivers is defined by eight monuments which could not be erected at the regular distance of one mile apart on account of the glaciers. The posts for these monuments had to be packed on men's backs all the way from the Takhini and Primrose valleys.

On the 22nd of October we left the valley of the Takhini river, and with the outfit managed to get back to the top of the escarpment, where the snow lay very deep. On the way to the pass, I thought we should have lost some of our animals, for there were no means of guessing how deep the drifts were, and the mules when led across them could move only by jumping. The black sky showed that another heavy storm was gathering, and we were, therefore, not a little pleased when we had crossed the divide (6,000 feet above the sea) to the valley of Primrose river.

On the 24th of October we were back again to station 'K,' on the eastern side of Primrose river. A day was employed in making enough wooden posts to mark the boundary east as far as Boudette creek, and in building monuments on the line both east and west of the river.

The men who had been left in charge of the pack animals finding it impossible to hold them together during the recent snow storms, which had delayed us so long in the Takhini valley, had gone from the Primrose valley to the confluence of Boudette creek with the Wheaton river where better pasture was to be found, and where timbered hills offered better protection to the animals. They had entered the valley of Radelet creek, which they had followed for three miles, then crossing over the glacier feeding Boudette creek, they had followed this stream down to their present location. As it would have been of very little use to have them return, by dividing the work amongst ourselves we proceeded with the posting and mounding of the line in the mountains east of Primrose valley. When this work was well under way, a man was dispatched to the head packer with orders to have wooden posts made and supplies carried up Boudette creek as near the boundary as they could possibly reach, for the snow along the line was at the time from two to six feet deep. This done, he was to take down the pack train and outfit to West arm.

In the meantime the final work on the line had progressed so well that by the 29th of October, ten monuments had been erected east of Primrose river, the last one being within three miles of Lake Partridge.

We now followed the valleys of MacAuley and Crozier creeks down to West arm where we were greatly surprised to find very little snow on the ground. From West arm, we proceeded to station 'J,' distant five miles. Here the line had to be opened through a thick forest covering the western slope of the range of mountains east of Lake Partridge. It was when the work was drawing to a close on this line that Alex-

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ander Munroe, one of my best axemen had the misfortune to fracture one of his legs. With the greatest difficulty we managed to carry him down these mountains to Lake Partridge and thence as far as West arm. When we at last reached Whitehorse, three days had elapsed since the accident, and the fractured leg was very much swollen. However, under proper treatment by Dr. J. N. Nicholson, who attended him, and with the care of the trained nurses in charge of the hospital he soon improved and when I last heard of him had fully recovered the use of his leg.

The survey in the vicinity of Lake Partridge having been completed the line was next defined in the valley of Lemieux creek, where monuments have been erected at the intersection of this stream, and also in the adjacent mountains. Then I went to Munroe lake, which was found partly frozen, and, therefore, unsafe for canvas boats. We had to walk along its shores to the line which had to be cleared along the slopes of Brown and Bennett mountains. Monuments were erected on both shores of the lake and also near the top of Brown mountain.

The next work was done on Lake Bennett where two monuments were erected west of the lake; one stands by the shore, whilst the second is built on a small plateau three-quarters of a mile west of the lake. Though its altitude is 2,225 feet above the lake it is plainly visible from it. This completed the survey of the boundary between Lake Bennett and the Takhini river.

PHOTOGRAPHIC WORK.

One hundred and ten photographs were taken to illustrate the country traversed by the line and to show remarkable objects met with when travelling through the mountains. These photographs were used to draw the topography shown on the map which accompanies this report. Some sections of the lakes and rivers intersected by the boundary were, however, plotted from measurements taken with the transit set up on the highest stations overlooking their valleys. When taking the photographs, I was generally favoured with fair weather, though at times it was almost impossible to prevent the camera vibrating in the fierce winds which were blowing over these mountains.

On November 13 we returned to Caribou crossing where the outfit was stored in one of the warehouses of the White Pass and Yukon railway. The pack animals had in the meantime been driven to Tagish post, their usual wintering place.

On the 15th we left Caribou for Skagway where we had to wait two days for the Canadian boat. We arrived in Vancouver on November 21, and the next day I left for Ottawa, where I reported at the office on the 27th. I have since been employed in developing my plates and preparing my returns.

I have the honour to be, sir,
Your obedient servant,,

ARTHUR SAINT-CYR, *D.L.S.*

APPENDIX No. 27 TO THE REPORT OF THE SURVEYOR GENERAL.

EXAMINATION PAPERS OF THE BOARD OF EXAMINERS FOR DOMINION LAND SURVEYORS.

EXAMINATION FOR ADMISSION AS ARTICLED PUPIL.

PENMANSHIP AND ORTHOGRAPHY.

Time, 3 hours.

Write a composition of not less than 200 words on: Choosing a profession.

One mark will be deducted for each word short of 200 in the composition.

ARITHMETIC AND LOGARITHMS.

Time, 3 hours.

	Marks.
1. Prove the rule for converting a recurring decimal to a vulgar fraction.	14
2. Multiply $0\cdot\dot{7}\dot{2}$ by $\frac{1}{7}$ by $(\frac{1}{3} + \cdot 0\dot{2}\dot{3})$ by $\frac{\frac{3}{8}}{\cdot 1\dot{2}\dot{2}}$	14
3. By logarithms multiply $\cdot 078567$ by $\cdot 189532$ and extract seventh root of product.	14
4. A train starts off at a uniform rate of 20 miles an hour, stopping every ten miles a minute and a half for passengers. Another train on a parallel track follows 25 minutes later and overtakes the first train in 65 minutes. What is the rate of the latter train?	14
5. Find the least common multiple of 21, 24, 42, 52, 77, 120. Divide it by the highest common factor and extract the cube root of the quotient.	14
6. Find the numerical value of $\tan A + \cos B + \operatorname{cosec} C$ where $A = 11^{\circ} 13' 14''$, $B = 96^{\circ} 18' 32'' \cdot 5$, $C = 347^{\circ} 19' 20'' \cdot 6$.	15
7. The logarithmic sine of an angle = $9\cdot 7923451$	
" tangent " = $10\cdot 923456$	
" secant " = $10\cdot 7654321$	15
Find the angles.	

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ALGEBRA.

Time, 3 Hours.

	Marks.
1. Expand $(a \pm b)^2$, $(a + b + c)^3$.	11
2. Multiply $a^4 - 3a^2b^2 + 2ab^3 + b^4$ by $a^3 - 2ab^2 - 2b^3$. Divide $x^7 - 5x^5 + 7x^3 + 2x^2 - 6x - 2$ by $x^4 - 3x^2 + 2x + 1$.	11
3. Find the <i>H.C.F.</i> of $3x^5 - 10x^3 + 15x + 8$ and $x^5 - 2x^4 - 6x^3 + 4x^2 + 13x + 6$.	11
4. Find the <i>L.C.M.</i> of $a^2 (b - x)^5 c^7 d$ and $a^3 (b - x)^2 c^4 e$.	11
5. Solve $x + y + z = a$, $2x + 3y + 4z = b$, $5x + 6y + 7z = c$.	11
6. Solve $x^2 - y^2 = \frac{609}{100}$, $xy = 1$.	11
7. The product of four consecutive numbers is 24024, find them.	11
8. At what time will the hands of a clock be a quarter of an hour apart between nine and ten o'clock?	11
9. Simplify the following expressions:— $10a - 5 \left[3a - 4b - 7 \left\{ \frac{2a + 5b - 3(a - b)}{4x^2 - xy - 3y^2} \right\} + 5 \left\{ \frac{2b + 4(a + b)}{x + \sqrt{x^2 - 1}} \right\} \right]$ $= \frac{x + \sqrt{x^2 - 1}}{x - \sqrt{x^2 - 1}} + \frac{x - \sqrt{x^2 - 1}}{x + \sqrt{x^2 - 1}}$	12

PLANE GEOMETRY.

Time, 3 Hours.

	Marks.
1. Prove geometrically $(2a + b)b + a^2 = (a + b)^2$.	14
2. In equal circles, the angles which stand on equal arcs are equal to one another, whether they be at the centres or circumferences.	14
3. Prove the Pythagorean theorem. (47·1.)	14
4. Prove that similar polygons are to another in the duplicate ratio of their homologous sides.	14
5. Divide a given straight line into two parts such that the square on one of them may be double the square on the other.	14
6. The straight lines joining the extremities of the chords of two equal arcs of a circle, towards the same parts are parallel to each other.	15
7. Two circles intersect at <i>A</i> and <i>B</i> : show that <i>AB</i> produced bisects their common tangent.	15

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PLANE GEOMETRY.

Time, 3 hours.

Marks.

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|--|----|
| 8. All the interior angles of any rectilinear figure, together with four right angles, are equal to twice as many right angles as the figure has sides. | 14 |
| 9. To describe a square that shall be equal to a given rectilinear figure. | 14 |
| 10. To draw a straight line from a given point, either without or in the circumference, which shall touch a given circle. | 14 |
| 11. In a given circle, to inscribe a triangle equiangular to a given triangle. | 14 |
| 12. Bisect a given triangle by a straight line drawn through a given point in a side. | 14 |
| 13. Describe a circle which shall touch a given circle, have its centre in a given straight line, and pass through a given point in a given straight line. | 15 |
| 14. Find the centre of a circle cutting off three equal chords from the sides of a triangle. | 15 |

PLANE TRIGONOMETRY.

Time, 3 hours.

Marks.

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|--|----|
| 1. Show that $\tan (A+B) = \frac{\tan A + \tan B}{1 - \tan A \tan B}$ | 14 |
| 2. Deduce value of $\cos 72^\circ$. | 14 |
| 3. If $A+B+C=180^\circ$, then $\tan A + \tan B + \tan C = \tan A \tan B \tan C$. | 14 |
| 4. Show that $\sin 3A = 3 \sin A - 4 \sin^3 A$. | 14 |
| 5. Show that $\cos \frac{1}{2} A = \sqrt{\frac{s(s-a)}{bc}}$ | 14 |
| 6. The three sides of a triangle are 15, 16, 17; find the angles. | 15 |
| 7. Two sides of a triangle are 21 and 23, and the included angle $72^\circ 13'$. Find the remaining side. | 15 |

SPHERICAL TRIGONOMETRY.

Time, 3 Hours.

Marks.

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|--|----|
| 1. Prove Napier's rules for the solution of right angled spherical triangles. | 16 |
| 2. Show that $\cos a = \cos b \cos c + \sin b \sin c \cos A$. | 16 |
| 3. Show that $\tan \frac{1}{2} (A+B) = \frac{\cos \frac{1}{2} (a-b)}{\cos \frac{1}{2} (a+b)} \cot \frac{1}{2} C$. | 17 |

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4. Show that $\tan \frac{1}{2} A = \sqrt{\frac{\sin(s-b) \sin(s-c)}{\sin s \sin(s-a)}}$ 17
5. Given $A = 72^\circ 15'$, $B = 110^\circ 23'$ $C = 92^\circ 14'$; find c . 17
6. In a right angled spherical triangle the hypotenuse = $44^\circ 35'$ and one of the sides = $1^\circ 13'$; find the other two angles. 17

MENSURATION AND SUPERFICIES.

Time, 3 Hours.

	Marks.
1. The sides of a triangle are 17.24 chs., 21.62 chs. and 17.76 chs.; find the area.	14
2. The sides of a quadrilateral inscribed in a circle are 11, 12, 13, 14; what is its area.	14
3. What is the side of a regular pentagon inscribed in a circle of radius unity?	14
4. What is the surface of a right cone circumscribed by a sphere of radius unity, the diameter of the base and slant of the cone being equal?	14
5. A field bounded by straight lines was found to contain 17.89 acres, but subsequently the chain (100 link) which had been used was found to be $5\frac{3}{4}$ inches too long. What is the area of the field?	14
6. What will be the uniform thickness of a casting on a sphere of radius 9 inches, made by the volume of a cone 8 inches in height and base 6 inches in diameter?	15
7. What are the dimensions of a right cylinder, height and diameter of base equal, whose total surface is equal to that of a circle, radius r ?	15

EXAMINATION FOR ADMISSION AS ARTICLED PUPIL.

(LIMITED EXAMINATION.)

Time, 3 hours.

	Marks.
1. Write a composition of not less than 200 words on: The natural resources of your province.	
2. Prove the rule for converting a recurring decimal to a vulgar fraction.	9
3. If 8 per cent be gained by selling a piece of ground for \$4,125.60, what would be gained per cent by selling it for \$4,202?	9
4. Write down the 3rd term of $(a+b)^{15}$.	9
5. How much ore must one raise, that on losing $\frac{17}{40}$ in roasting and $\frac{8}{19}$ of the residue in smelting, there may result 506 tons of pure metal?	9
6. Solve $2^x + 1 + 4^x = 80$.	8
7. Construct geometrically the relation $(a+b)b = a^2$.	9
8. Solve $x^2 - 7x + 1/\{x_2 - 7x + 18\} = 24$.	9
9. Extract the seventh root of .00317 and multiply by $(824)^{\frac{2}{3}}$	9
10. Given $\log. 2 = .301300$, $\log. 3 = .4771213$ find $\log.$ of .024, 375 and 432.	9

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EXAMINATION FOR ADMISSION AS ARTICLED PUPIL.

(LIMITED EXAMINATION.)

Time, 3 hours.

	Marks.
11. The perpendiculars from the vertices of a triangle to the opposite sides respectively, intersect in a point.	11
12. Construct a rectangle equal to the difference of two given squares.	11
13. Show that $\sin A + \sin B = 2 \sin \frac{1}{2}(A+B) \cos \frac{1}{2}(A-B)$.	11
14. Show that $\tan(A+B+C) = \frac{\tan A + \tan B + \tan C - \tan A \tan B \tan C}{1 - \tan A \tan B - \tan A \tan C - \tan B \tan C}$	11
15. Given $A = 30^\circ$, $B = 45^\circ$, $c = \sqrt{18}$; solve the triangle.	11
16. In a plane triangle the sides are 7, 8, 9; find one of the angles.	11
17. In a spherical triangle $A = 68^\circ$, $B = 72^\circ$, $C = 80^\circ$; find one of the sides.	12
18. Give formulæ for volume and surface of a sphere, cylinder, cone, and frustum of a pyramid.	11
19. How many acres in a field whose sides are 13, 14, and 15 chains?	11

FULL EXAMINATION FOR ADMISSION AS SURVEYOR.

ALGEBRA.

Time, 3 hours.

	Marks.
1. Reduce $\frac{x^4 + 3x^3 - 7x^2 - 21x - 36}{x^4 + 2x^3 - 10x^2 - 11x - 12}$ to its simplest form.	15
2. Solve $\frac{1}{x+6a} + \frac{2}{x-3a} + \frac{3}{x+2a} = \frac{6}{x+a}$	15
3. When between four and five o'clock are the hour and minute hands of a clock 15 minutes apart?	14
4. Solve $3x + 2\sqrt{x-1} = 0$.	14
5. Solve $x^2 + y^2 = 25$, $xy = 12$.	14
6. Find two numbers such that their sum may be 39, and the sum of their cubes 17199.	14
7. Find that number whose square added to its cube is nine times the next higher number.	14

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PLANE GEOMETRY.

Time, 3 hours.

	Marks.
1. Prove that the sum of the three interior angles of a triangle is equal to two right angles, and that the sum of the interior angles of any convex rectilineal figure of n sides is less by four right angles than $\frac{1}{2} n$ right angles.	19
2. Divide a straight line into two parts, so that the rectangle contained by the whole line and one part may be equal to the square on the other part.	19
3. Prove that the locus of a point, whose distance from one of two fixed points is double that from the other, is a circle.	19
4. Chords of a circle, which are equal, are equidistant from the centre.	17
5. Inscribe in a given circle a triangle so that one angle may be a half of a second angle, and a third of the third angle.	19
6. Inscribe a regular pentagon in a given circle.	19
7. The diagonals of a regular pentagon which meet within the figure divide each other in extreme and mean ratio.	19
8. Similar triangles are to one another in the ratio duplicate of the ratio of two corresponding sides.	19

SOLID GEOMETRY.

Time, 3 hours.

	Marks.
1. Define the terms: Plane, pyramid, right circular cone, oblique circular cone, frustum of a pyramid, sub-contrary section of a cone, and regular polyhedron.	15
2. If two straight lines lying in one plane be parallel respectively to straight lines lying in another plane, they shall include equal angles.	15
3. If a solid angle be contained by three plane angles any two of them are together greater than the third.	15
4. What is the radius of a sphere whose volume is equal to that of a right cone whose height is h and radius of base r ?	15
5. How much water must be poured into a cylindrical vessel a inches in diameter, in which rests an iron sphere of r inches radius, so that half of the sphere is submerged?	15

SPHERICAL TRIGONOMETRY.

Time, 3 hours.

	Marks.
1. Deduce the formula	
$\cos a = \cos b \cos c + \sin b \sin c \cos A.$	17
2. Show that	
$\frac{\cos \frac{1}{2}(A+B)}{\cos \frac{1}{2}(A-B)} = \frac{\tan \frac{1}{2}c}{\tan \frac{1}{2}(a+b)}$	18

- | | |
|---|----|
| 3. Give and prove Napier's rules for the solution of right angled spherical triangles. | 18 |
| 4. Solve the right triangle where $c = 100^\circ 17' 15''$ and $b = 82^\circ 16' 30''$. | 18 |
| 5. When $a = 72^\circ 16'$, $b = 36^\circ 52'$, and $C = 67^\circ 10'$ find the other two angles. | 18 |
| 6. Given $a = 59^\circ 11'$, $b = 74^\circ 29'$, $C = 67^\circ 57'$. Find B . | 18 |
| 7. Given $A = 47^\circ 18'$, $a = 39^\circ 53'$, $b = 63^\circ 17'$. Find C . | 18 |

MEASUREMENT OF AREAS AND SUBDIVISION OF LAND.

Time, 3 hours.

Marks.

- | | |
|--|----|
| 1. Divide a triangle into two parts in a given ratio by a straight line parallel to one of the sides. | 20 |
| 2. In a triangular field with sides of 11, 12 and 13 chains draw a line parallel to the longest side and cutting the area in halves. | 20 |
| 3. A race track is half a mile long and 30 feet wide, being 15 feet on each side of centre line. It is desired to double the width of the track, equally on each side. How much land will be required therefor? | 20 |
| 4. Section 3, Tp. 9, R. 4 W. of 2nd Initial Meridian is to be divided into three equal parts by two lines starting from the point on southern boundary twelve chains from the south-east corner of the section. Required the lengths and azimuths of the division lines. | 20 |
| 5. In a triangle of given sides a, b, c required to bisect the triangle by a straight line perpendicular to the side c . Find expression for length of dividing line. | 20 |

MEASUREMENT OF AREAS AND SUBDIVISION OF LAND.

Time, 3 hours.

Marks.

- | | |
|--|----|
| 6. Compute the area from the following notes, supplying the missing bearing and distance :— | 20 |
| <div style="display: flex; justify-content: space-between;"> <div> 1. N. $34^\circ 15'$ E.
 2.
 3. S. $56^\circ 45'$ E.
 4. S. $34^\circ 15'$ W.
 5. N. $56^\circ 30'$ W. </div> <div> c.
 2.73
 1.28
 2.20

 3.20 </div> </div> | |
| 7. Explain fully the process of "balancing" a survey of a closed figure. | 20 |
| 8. Deduce or give a general formula whereby in a closed survey the following unknowns may be found :— | 20 |
| I. The bearing and length of one course.
II. The bearing of one course and length of another course.
III. Two bearings.
IV. Two lengths. | |

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9. A field was found to contain a acres, but it was afterwards found that the chain which was used was b links too short. What is the true area of the field? 20
10. Deduce the method of computing areas by "latitudes and departures." 20

DESCRIPTIONS.

Time, 3 hours.

Marks.

1. In a registered and certified plan the measurements and bearings of all lines are given; each lot is numbered and shown as being one chain wide and two long. Make a description of one of the lots for a deed of bargain and sale. 20
2. The following is a part of a registered and certified plan: the owner of Lot No. 7 sells 40 feet frontage on Second Street, and adjoining Prairie Avenue, and this width to extend to the lane. 20

PRAIRIE AVENUE.	Due North.	1 ⁰⁰ FIRST ST. Due East.		
		1 ⁰⁰	1 ⁰⁰	1 ⁰⁰
		6	5	4
		2 ⁰⁰	2 ⁰⁰	2 ⁰⁰
	Lane 20 lks. wide.			
		7	8	9
		1 ⁰⁰	1 ⁰⁰	1 ⁰⁰
		2 ⁰⁰	2 ⁰⁰	2 ⁰⁰
		1 ⁰⁰ SECOND ST. Due East.		

Make a description by metes and bounds of the part sold.

3. The owner of the S. E. $\frac{1}{4}$ Sec. 4, Tp. 5, R. 4 W. of 2nd I. M., sells the southerly 100 acres thereof, the boundaries to be the southern boundary of the $\frac{1}{4}$ Sec., the eastern and western ones, and a line parallel to the southern boundary. Give description of the part sold, by meets and bounds. 20
4. Through Sec. 21, Tp. 8, R. 6 W. of 2nd I. M., flows a stream westward. The owner of the section sells the eastern half (two $\frac{1}{4}$ sections), but reserves the privilege of "swelling" the water and of access along the banks of the stream for the purposes of repair of banks in that half of section 21. Make description of part sold for a deed. 20
5. Draw up an assumed evidence, and which is of value, of a witness regarding the lost post of a section corner, which it is desired to re-establish. 20

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ASTRONOMY.

Time, 3 hours.

	Marks.
1. Define declination ; right ascension ; mean, solar and sidereal time ; parallax ; parallactic angle ; and refraction.	14
2. Explain the unequal variation in the equation of time. A graphic solution may given.	14
3. On Oct. 15, 1900, the sun crossed the meridian at a certain point $3^h 04^m 18^s$ (sidereal time) after it crossed the meridian of Ottawa, longitude $75^{\circ} 42' 30''$. What is the longitude of the former ?	14
4. A sidereal chronometer at Winnipeg is fast $2^h 16^m 32.5^s$; what is the hour angle of β Persei R. A. $3^h 00^m 49.04^s$ at Kamloops when the above chronometer shows $7^h 42^m 17.0^s$? Kamloops is west of Winnipeg $1^h 32^m 47.34^s$.	14
5. On Nov. 17, 1900, in longitude $8^h 12^m 13^s$ W., what time should a sidereal chronometer show at the instant when the sun crosses the meridian.	14
6. Give formula for determining latitude from transit of star across the prime vertical. How would you find your chronometer correction for making the above determination ?	15
7. What is the azimuth of Polaris on May 21, 1900, at western elongation at Calgary, latitude $51^{\circ} 02' 39''.21$, longitude $7^h 36^m 14.24^s$?	15

ASTRONOMY.

Time, 3 hours.

	Marks.
8. Require the time of sunrise at Winnipeg, latitude $49^{\circ} 53'$, longitude $97^{\circ} 07'$ on June 20, 1902.	20
9. On the tenth base line, range 7 W. of 3 I. M., what is the apparent altitude of Polaris, on July 1, 1902, at upper transit ?	20
10. At the same place and date of last question, the observed altitude of the sun's lower limb was $35^{\circ} 16' 30''$ when a watch showed $5^h 47^m 28^s$, what was the azimuth of the sun and watch correction ?	20
11. At the same place and date of last question, the observed altitude of a star at transit was $78^{\circ} 14' 15''$, what was the declination of the star ?	20
12. Find from the Nautical Almanac the right ascension and declination of the moon at $17^h 13^m 40^s$, Greenwich mean time, on August 25, 1902.	20



FROM POST 94, LOOKING EAST, LAKE MUNROE IN FOREGROUND, BENNETT MOUNTAINS IN THE DISTANCE.

[Photo by A. Saint-Cyr.]



FROM POST 95, LOOKING EAST, BENNETT MOUNTAINS IN THE DISTANCE.

[Photo by A. Saint-Cyr.



FROM POST 35. LOOKING WEST, MUNROE PEAK IN THE CENTRE.

[Photo by A. Saint-Cyr.



FROM POST 99, LOOKING EAST.

[Photo by A. Saint-Cyr.]



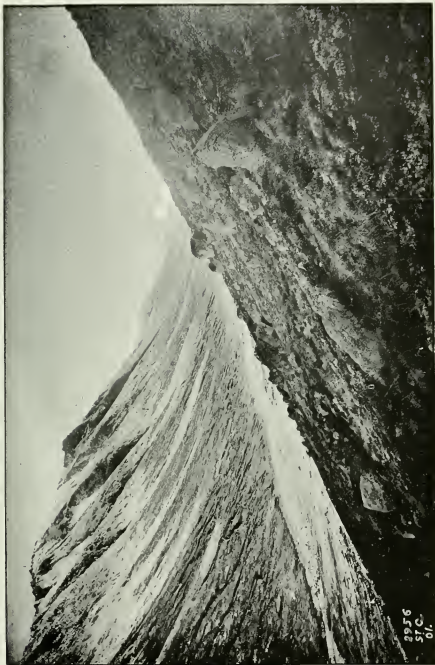
FROM POST 99, LOOKING WEST, LAKE PARTRIDGE IN FOREGROUND.

[Photo by A. Saint-Cyr.]



FROM POST 101, LOOKING WEST, LAKE PARTRIDGE IN FOREGROUND.

[Photo by A. Saint-Cyr.]



FROM POST 112, LOOKING EAST, VALLEY OF RADELET CREEK.

[Photo by A. Saint-Cyr.



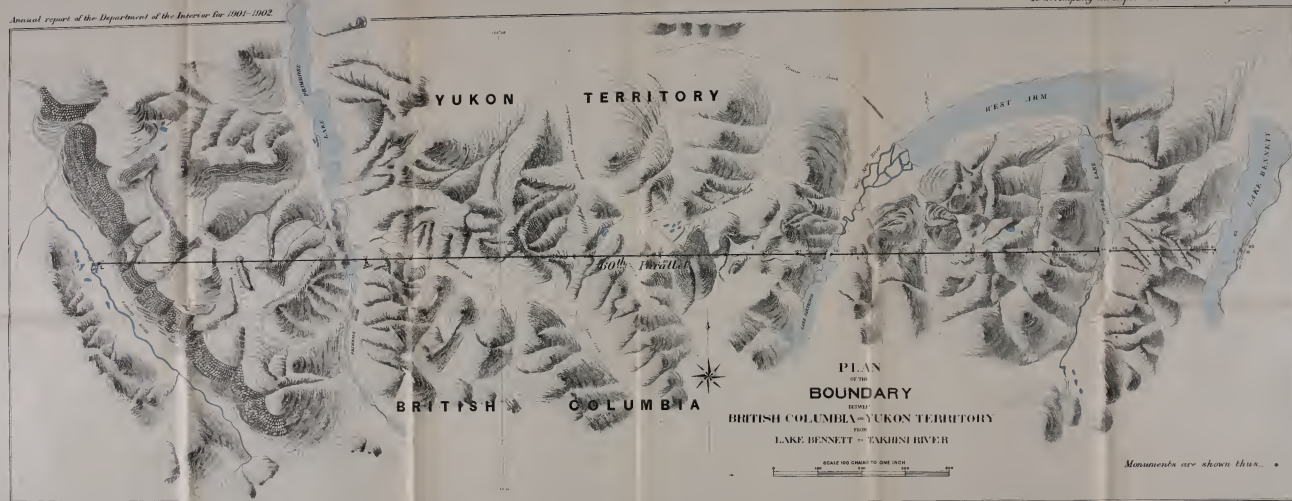
FROM POST 113, LOOKING WEST, PRIMROSE RIVER IN FOREGROUND.

[Photo by A. Saint-Cyr.



FROM POST 117, LOOKING WEST, ROTHWELL GLACIER.

[Photo by A. Saint Cyr.



PART IV.

NORTH-WEST REGISTRARS



NORTH-WEST REGISTRARS.

REPORT OF THE REGISTRAR AT BATTLEFORD.

BATTLEFORD, July 12, 1902.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to forward herewith two statements, one showing the work done and the fees received therefor in this office during the fiscal year ending 30th ultimo, and the other giving a statement of the contingent expenditure for the same period with items classified.

Your obedient servant,
R. F. CHISHOLM,
Registrar.

STATEMENT showing the work done and fees received at the Land Titles Office for the West Saskatchewan Land Registration District for the year ending June 30, 1902, and for the previous year:—

Months, 1900-1901.	Instruments Registered.	Free Certificates issued.	Total number Cer- tificates issued.	Assurance Fees.	Total Fees.	Months, 1901-1902.	Instruments Registered.	Free Certificates issued.	Total number Cer- tificates issued.	Assurance Fees.	Total Fees.
1900.				\$ cts.	\$ cts.	1901.				\$ cts.	\$ cts.
July.....						July.....	2		1	0 40	6 25
August.....						August.....	3				6 00
September.....						September.....	1		1	1 96	6 31
October.....						October.....	3	1	2	0 64	6 49
November.....						November.....	6	5	6	0 80	5 15
December.....	2		2	1 76	9 61	December.....					
1901.						1902.					
January.....	3		3	0 10	13 15	January.....	1				4 05
February.....	1		1		4 35	February.....	2		1	2 00	8 35
March.....	8	8	8			March.....	2		1	0 65	6 75
April.....	6		3	1 92	15 12	April.....	3	1	3	1 48	11 68
May.....	2		2	0 20	8 90	May.....	2	1	2	1 80	10 15
June.....						June.....					
Totals.....	22	8	19	3 98	51 13	Totals.....	25	8	17	9 73	71 18

Certified correct,

R. F. CHISHOLM,
Registrar.

BATTLEFORD, July 10, 1902.

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STATEMENT of the Contingent Expenditure of the Land Titles Office, Battleford, for the fiscal year ended June 30, 1902.

	Amount.
Caretaking, fixing windows, etc.	\$ 41 60
Travelling expenses.	52 50
Express charges on stationery and office supplies.	14 65
Firewood	20 00
Repairing letter scales	0 75
Postage stamps.	6 60
Commission on P. O. Money Orders	0 65
	<hr/>
	\$136 75
	<hr/>

Certified correct,

R. F. CHISHOLM,
Registrar.

REPORT OF THE REGISTRAR AT CALGARY.

CALGARY, N.W.T., July 7, 1902.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I beg to inclose comparative statement of receipts for fees paid through this office for the years ending respectively June 30, 1901, and June 30, 1902.

There is also inclosed a summary of the expenditure incurred in respect of this office for the year ending June 30, 1902.

Your obedient servant,

W. ROLAND WINTER,
Registrar.

SUMMARY of expenditure for year ending June 30, 1902, at Land Titles Office, Calgary.

Salaries—

W. R. Winter, Registrar.	\$1,600
C. D. Rickards.	900
G. Templeton.	720
F. McCarthy, 7 months.	280
F. R. Exham, 5 months.	420
	<hr/>
	\$3,920 00
Caretaker.	110 00
Postages.	65 00
Post office box.	6 00
Telegrams.	3 12
Cartage.	1 50
	<hr/>
	\$4,105 62
	<hr/>

W. ROLAND WINTER,
Registrar.

SESSIONAL PAPER No. 25

SOUTH ALBERTA LAND REGISTRATION DISTRICT, CALGARY.

COMPARATIVE STATEMENT of Registrations, &c., &c., in the Land Titles Office, South Alberta Land Registration District, Calgary, for the years July 1, 1900, to June 30, 1901, and July 1, 1901, to June 30, 1902.

Year and Month.	Number of Instruments Registered.	Free Certificates only.	Aggregate Num- ber of Certi- ficates.	Assurance Fees.	Total Fees.	Year and Month.		Number of Instruments Registered.	Free Certificates only.	Aggregate Num- ber of Certi- ficates.	Assurance Fees.	Total Fees.
						1900.	1901.					
1901.				%	cts.						%	cts.
July.....	136	41	111	59 70	471 85	July.....	125	31	90	40 05	363 65	
August.....	160	42	111	92 68	511 38	August.....	115	38	90	47 35	363 70	
September.....	225	102	166	67 10	471 75	September.....	125	44	100	67 29	377 29	
October.....	262	114	197	66 30	571 60	October.....	87	2	58	62 25	375 55	
November.....	254	118	190	129 65	613 95	November.....	123	31	84	41 20	370 60	
December.....	271	122	195	134 05	618 80	December.....	114	23	70	34 80	354 50	
1902.						1901.						
January.....	173	40	119	199 30	715 15	January.....	132	62	148	41 05	311 90	
February.....	218	92	162	68 10	522 15	February.....	87	8	52	56 05	308 80	
March.....	170	38	117	88 95	550 05	March.....	123	13	88	84 45	521 95	
April.....	301	81	224	223 75	1,040 35	April.....	176	25	107	91 90	605 10	
May.....	338	208	325	172 25	863 20	May.....	208	52	147	104 75	649 50	
June.....	350	88	278	226 80	1,239 35	June.....	182	49	121	136 39	601 89	
Irrigation plans.....	2,438	1,092	2,195	1,519 63	8,190 68	Irrigation plans.....	1,597	378	1,164	787 53	5,207 43	
	4						6					

W. ROLAND WINTER,
Registrar.

CALGARY, July, 1902.

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REPORT OF THE REGISTRAR AT DAWSON.

DAWSON, Y.T., June 30, 1902.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I beg to transmit herewith my report for this office for the year ending to-day.

Your obedient servant,

J. E. GIROUARD,
Registrar.

REGISTRAR'S OFFICE,
DAWSON, Y.T., June 30, 1902.

REPORT of the Land Titles Office of the Yukon Territory from the 1st day of July, 1901, to the 30th day of June, 1902. Compared with same of the previous years.

Year and Month.	No. of Deeds recorded.	No. of Certificates of Title issued.	INCOME.		
			Fees.	Assurance Fund.	Total.
1901.			8 cts.	8 cts.	8 cts.
July.....	144	108	1,107 70	322 00	1,429 70
August.....	143	90	763 80	219 47	983 27
September.....	146	93	762 25	156 25	918 50
October.....	156	91	788 70	141 43	930 13
November.....	99	55	528 30	98 67	626 97
December.....	72	36	271 60	55 55	327 15
1902.					
January.....	108	49	333 30	87 85	421 15
February.....	63	26	302 00	103 00	405 00
March.....	75	43	338 50	72 95	411 45
April.....	107	75	552 75	108 21	660 96
May.....	100	56	527 70	102 50	630 20
June.....	164	95	881 70	289 85	1,171 55
Total, 1901-2.....	1,377	817	7,158 30	1,757 75	8,916 05
" 1900-1.....	1,961	466	5,059 75	686 06	5,745 81
" 1899-00.....	1,134	31	2,454 25	6 40	2,460 15
Increase on 1900-1.....	..	351	2,098 55	1,071 69	3,170 24
Increase on 1899-00.....	43	786	4,704 05	1,751 35	6,455 40

J. E. GIROUARD,
Registrar.

SESSIONAL PAPER No. 25

REPORT OF THE REGISTRAR AT EDMONTON.

STATEMENT of Registrations &c., in the Land Titles Office, North Alberta Land Registration District, Edmonton, for the year ending June 30, 1902.

Year and Month.	Number of Titles issued.	Number of Free Certificates.	Number of Instruments registered.	Assurance Fees.	Total Fees collected.
1901.				8 cts.	8 cts.
July.....	184	72	277	116 80	737 40
August.....	151	81	270	88 40	667 30
September.....	169	88	242	64 10	559 45
October.....	216	87	341	128 70	874 00
November.....	196	61	316	138 75	886 95
December.....	266	115	426	191 20	1,112 20
1902.					
January.....	240	116	413	149 00	985 85
February.....	336	200	513	175 65	1,050 30
March.....	383	203	574	194 25	1,189 25
April.....	346	140	546	268 10	1,529 75
May.....	335	191	508	185 80	1,106 05
June.....	379	240	516	167 30	1,004 20
	3,201	1,663	4,942	1,868 05	11,701 70

GEO. ROY,
Registrar.

REPORT OF THE REGISTRAR AT PRINCE ALBERT.

PRINCE ALBERT, N.W.T., July 5, 1902

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to transmit you my report of the work done and fees collected in this office for the fiscal year just ended, 1901-2.

The amount of work done in this office during the past year shows a very satisfactory increase, as does also the amount of fees collected.

The total number of instruments put on the day book was 1,243, an increase over the previous year of 504 instruments ; of these 399 were free and are made up as follows: Grants, 325 ; Seed grain liens and bonds, 49.

Hudson's Bay Company applications, 1.

North-west Government transfers, plans, &c., 24.

The total amount of fees received during the year was \$3,081.73, made up as follows :

1901.	
July	\$191 55
August	228 90
September	186 30
October	131 48
November	209 50
December	276 60

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1902.	
January.....	\$ 313 70
February.....	279 85
March.....	311 55
April.....	360 55
May.....	223 15
June.....	368 00

The total receipts for the previous year were \$1,662.70, showing an increase this year of \$1,419.03.

Your obedient servant,

STEPHEN BREWSTER,

East Saskatchewan Land Registration District.

REPORT OF THE REGISTRAR AT REGINA.

REGINA, N.W.T., July 10, 1902.

JAMES A. SMART, Esq.,

Deputy Minister of the Interior,
Ottawa.

SIR,—I inclose you report of work done in this office during the past fiscal year, and I am glad to be able to report so well.

I have made no comparative report as yet, but upon comparison with the report made by Mr. Newlands as inspector of Land Titles Offices, dated July 31st last past, the work shows a very considerable increase. I find that the income of the office has risen from \$14,315.20 to \$18,893.55, while the total number of instruments registered increased from 5,746 to 6,713.

There is every indication that the work will continue to increase in an even not less proportion for the next year.

Your obedient servant,

F. F. FORBES,

Registrar.

REPORT for the year ending June 30, 1902, of the work of the Assiniboia Land Titles Office.

No. Instruments Registered.	Total Certificates of Title.	Total free Certificates of Title.	Total Fees collected.	Assurance Fees.
1901—			8 cts.	8 cts.
July, 372.....	162	26	1,172 20	150 45
August, 376.....	189	56	1,039 80	141 50
September, 304.....	147	34	1,005 30	208 50
October, 449.....	259	110	1,133 70	177 65
November, 349.....	190	53	1,055 20	147 55
December, 404.....	216	70	1,259 60	211 40
1902—		51		
January, 459.....	216		1,403 75	251 25
February, 638.....	379	109	1,880 95	333 30
March, 694.....	352	144	2,029 75	291 50
April, 861.....	459	161	2,527 75	190 40
May, 898.....	568	313	2,222 15	397 65
June, 909.....	636	379	2,172 40	434 50
6,713.....	3,773	1,506	\$18,893 55	\$3,035 65

F. F. FORBES,

Registrar.

PART V.

ROCKY MOUNTAINS PARK OF CANADA

ROCKY MOUNTAINS PARK OF CANADA.

REPORT OF THE SUPERINTENDENT.

ROCKY MOUNTAINS PARK,

BANFF, July 7, 1902.

To the Honourable CLIFFORD SIFTON,
Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the following report of the condition of affairs in the Rocky Mountains park, from the date of my last report made June 30, 1901, to June 30, 1902.

My report of that date brought the works down to the end of June, at which time the high road to Anthracite was under construction. The building of this piece of road had been advocated on the ground of the dangerous position of the old one, and the late experience of the floods this spring fully confirms the opinion then formed.

This work was continued through the month of July, when it was completed. The month of August was occupied in lowering the grades and straightening the road east of Anthracite. About one and a half miles of new road was opened up and improved in this portion of the park.

During the month of September the men were engaged in putting up hay for the buffalo and other animals in the park, and also in overhauling all the roads in the park and getting them in good condition for the visit of their Royal Highnesses the Duke and Duchess of Cornwall and York. Most of the party spent four days here and enjoyed the drives and scenery.

In October the men were transferred to Sulphur Mountain to build a bridge trail from the Hot Springs to the summit. They were engaged on this work until the end of November, when we had to abandon it on account of snow. A portion of the month of December was spent in cutting and underbrushing along the sides of the road leading to Lake Minnewanka, when all work was abandoned for the winter.

It was hoped that the process of cleaning up much of the dead timber would have been continued during the winter months, as being the fittest time for this class of work, but snow prevented us from carrying on the work advantageously. A few men were occasionally engaged during the winter in getting out wood for the Cave and Basin, and clearing snow after heavy storms. This operation is not often required, however, as drifting does not occur to any great extent in the mountains.

Early in March work was commenced on a new bridge over Cascade river at Anthracite. The structure consists of an eighty foot span, Howe truss, with pile abutments at each end and a pile approach of 20 feet. The bridge was completed about the first of May, and a new road about a quarter of a mile in length was made to connect this bridge with the two roads leading from Banff to Anthracite; so that tourists and others can now drive over what is called Hoodoo avenue along the high table land, pass down into the Cascade valley, cross the river and return by Anthracite and King Edward's high road to Banff; making a round drive of about ten miles over a beautiful section of natural scenery.

Early in May, the whole western country was deluged with heavy rains, which continued almost incessantly during the months of May and June. The Territories

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suffered most severely in having many large bridges carried away and roads swept out of existence. Several of the roads in the park which skirt the banks of the rivers were submerged and their surfaces and protection walls damaged.

The large quantity of snow in the mountains was melted with the rains and carried down faster than the channels of the rivers could discharge it, and the overflowing of the banks was in many cases disastrous to property in the vicinity.

Much care had to be taken to see that the bridges in the park were not damaged by the quantity of drift timber which the unusually high water brought down. When the water subsided the necessary repairs were made to keep the roads open for traffic.

The Canadian Pacific Railway Company suffered much here as well as at other places in the mountains, and the whole traffic was suspended for six days in consequence. No such floods had taken place in this part within the recollection of any one, and it is hoped that many years may elapse before such another scene will be witnessed.

It is very satisfactory to know that none of the bridges erected in the park by your department have suffered any damage.

Towards the end of June work was resumed on the bridle path leading up Sulphur Mountain. This path leads the traveller by a continuous number of switch roads to the top of the mountain, where an extensive view of the Lower Bow valley meets the eye, and brings the numerous islands of the Bow into view of the spectator for the first time to advantage. The scene is unequalled from any other point so easily accessible and the visitor is well rewarded for the labour in attaining this elevated spot. The path then winds along the crest of the mountain for nearly half a mile, bringing into view each moment the many attractive points in the several valleys which radiate from this mountain.

On attaining the highest point about midway along the crest the Cascade valley presents all its beauties, and a portion of Lake Minnewanka is seen with the Palliser and Inglesmadie ranges towering above it on either side. The path through its length is from six to eight feet in width, solid and compact, on a grade of about one in six, so there is little or no risk and equestrians can pass up and down without difficulty. The total length of this path from Hot Springs will be when completed about four miles.

As soon as the path is completed a stone building will be erected by the Meteorological department on the highest point of the mountain.

Instruments for taking the velocity and currents of the wind and also the temperature will be placed there, and the whole connected by a wire cable with the Museum in the valley and it will register automatically. It is expected when all is completed that few will think of going away from the park without taking this most charming trip.

Next year rustic shelters will be provided at several shady spots on the way up for the benefit of those who require to rest on their journey to the top.

In November last year the Grand View Hotel situated at the upper Hot Springs was burned down, and at present there are no buildings at this most interesting spot. It is hoped that your department will take control of the waters at this point and erect suitable bathing houses and baths, as it is generally conceded that the waters from the springs there are the most beneficial and healing of any of the sulphur springs in the park.

ANIMALS IN THE INCLOSURE.

The buffalo continue to thrive and do well and the increase during the past year has been most satisfactory. In the year 1901 there was an increase of six, and loss none; and in 1902 up to the present date there is an increase of three, and loss one two-year-old heifer in calving. There will no doubt be a further increase during the present year. The total increase during the four years has been 19 and the total loss 2.

It is the intention during the present year to introduce some new blood into the herd, and I am now corresponding with the Secretary of the Interior at Washington with regard to an exchange of bulls from their herd in the Yellowstone Park.

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The elk have also done well, there being an increase of three since my last report, and two more does were purchased during the year. There are nine all told in the herd now.

Three of the six young moose that were procured last year have survived and are now in prime condition. It is intended to secure a few more during the coming year if possible.

The Angora goats are increasing rapidly and it will soon be necessary to dispose of some, as they will get too numerous for the limited grazing land in the park. They are very beautiful little animals and are much admired by the visitors to the park.

I was very fortunate in securing a young Rocky Mountain goat this spring, and it is being foster-mothered by one of the Angoras and is doing well and will no doubt survive the change. It is the only specimen in captivity in Canada, and so far as is known there are only two others, one in Central Park, New York, and the other in the Zoological Gardens, Regent's Park, London, England, both of which were taken from the mountains in this vicinity.

The Stony Indians are now trying to secure a second one, and also a pair of mountain sheep.

The total number of animals in the animal inclosure in the park now is as follows: Buffalo 33, Elk 9, Moose 3, Angora goats 22, Mountain goat 1, Mule deer 1, Coyotte 1. Total, 70 head.

There were over 3,000 people passed through the gates into the paddock during the year, and it is one of the most interesting features to many who visit the park. The wild game in the park seems to be more numerous than ever, at least more has been seen this year by the tourists than ever before, both mountain sheep and deer, and frequently seen along the drives. It is hoped that the regulation allowing dogs to run at large in the park will be amended, as it is a well known fact that one small dog running at large, while it will do no harm to the large game, will drive it so far back from the roads that none will be seen by the average tourists; and as the game is one of the most interesting features of the park to visitors, it is desirable that an opportunity should be given them to see it, and with this end in view it should be disturbed as little as possible. So far as I have been able to find out not a single head of large game has been killed in the park during the past year.

FISH AND FISH HATCHING.

There is scarcely any feature in the park which tourists enjoy more than the trout fishing which is now to be had in almost any stream in the park. There are but few places in the country where better sport can be had than in the streams in the park. There is no restriction placed on fishing at present save that fish cannot be caught and sold for the market, and in order that it may never be necessary to make any restrictions it is strongly urged that a small fish hatchery be established here. If this can be done the streams can be kept so full of trout that it will be impossible for the tourists to deplete them.

CAVE AND BASIN.

These swimming baths continue to be the favourite resort for the public generally, and all who frequent them to enjoy a good swim express their satisfaction with the efforts that have been made to meet their comfort and convenience. The work done this year in connection with these baths consists in the placing of new sills and joists in the basin building, and also in rearranging the bath rooms and fresh painting the interior.

The register kept at the Cave and Basin shows the number of persons who registered as 3,664, an increase of 800 over last year. This, however, does not indicate truly the number of visitors as many persons resort to these places without registering.

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VISITORS.

It will be seen by the statement furnished by the hotel registers that the number of visitors to the park has increased considerably over the previous year, the Canadian Pacific hotel showing an increase of 933, and the Sanitarium 600 over last year. The smaller hotels had their proportionate increase. The total increase over any previous year in the history of the park was 1,317.

AS A HEALTH RESORT.

Some day the park will be noted as a place to which those in search of health will resort for that purpose. The general elevation of the region, the purity of the mountain air, the cool temperature during the period of great heat in cities, the delightful and medical effects of the natural mineral waters, the refreshing sleep and rest obtained and the purity of the drinking water are bound to have their influences.

It is not easy to turn the tide of pleasure and health seekers from old and established spots and resorts. It requires time to do this, and a beginning has been made. June, July and August, the months of the park tourist season, are the months of greatest heat and discomfort at low altitudes. During these months the maximum temperature here is from eighty-five to ninety-two degrees, and the average is from fifty-five to sixty-five degrees with cool refreshing nights.

The higher temperatures are not felt in the park as they are in the cities or at low elevations.

Each year the number of persons who spend several weeks or even the entire season in the park increases. Besides giving the finest opportunity for seeing and studying the park it also means a large amount of leisurely and healthful outdoor exercise. It costs no more to live at the park hotels than it does at corresponding hotels at other places, and the knowledge one gains coupled with the benefit to health obtained in this climate and altitude for most persons can hardly be estimated. Those liable to heart trouble should consult a physician before coming to the park. A very few persons are sometimes unpleasantly affected when reaching the higher altitudes.

For most persons a stay of a few weeks proves a wonderful constitution builder.

FOREST RESERVES.

The outlook over forest affairs is now most encouraging. Popular interest more practical than sentimental in whatever touches the welfare of the country's forests is growing rapidly, and a most hopeful beginning has been made in real protection for the reservations as well as for the park. One of the important measures taken during the past year was the enlargement of the boundaries of the park, and also in the employment of a number of fire guardians on the various reservations.

The park reserve now contains over three and a half million acres of forest covered mountains in which a number of the great rivers of Alberta take their rise. The land is too rocky and high for agriculture and could never be made so valuable for any other crop as for the present crop of trees. Under their natural condition or under a wise management in preventing fires, these forests should be a never failing fountain of wealth and beauty. The farmers and ranchers of this country are beginning to realize that when the timber is stripped from the mountains the irrigating streams dry up in summer. The cool shades of the forest give rise to moist beds and currents of air, and the sod of grasses and the various flowering plants and shrubs thus fostered, together with the network of the tree roots, absorb and hold back the rain and waters from melting snows, compelling them to ooze and flow gently through the soil in streams that never dry.

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IMPROVEMENTS.

None of nature's landscapes are ugly so long as they are wild, and much must be in great part wild. The steady long lasting glaciers on the mountains and the rocky canyons and mountains in general, these must always be wild. All the mountains are still rich in wildness, and by means of good roads are being brought nearer civilization every year; the wildest health and pleasure grounds are made accessible and available to many a lover of wildness who without them would never see it. It is hoped that in a short time many very necessary improvements will be carried out, such as extending the roads and increasing the means of reaching the many points of interest beyond the present termination of the drives.

At the heads of the several smaller streams falling into the Bow, and on the Bow itself many small lakes are found well stocked with fish, and it is very desirable that these points should be reached for the benefit of sportsmen and others. It is thought that this object can be obtained most effectually and cheaply by means of bridle roads leading up through the valleys. These roads can be built cheaply and also be quite sufficient for the pack horses carrying the outfits of tourists and sportsmen. The variety of mountain scenery is so great that a small area can contain but a few of the wonders, and although the original park covered a specially interesting region well adapted for walks and drives it did not include some of the highest mountains, the greatest glaciers and snow fields and other natural attractions which give an Alpine grandeur to certain outlying regions.

It is hoped and expected that this isolation will soon be remedied by the construction of a number of bridle trails above referred to. This would, moreover, facilitate the opening of new regions which have unusual attractions to travellers who now, as is evidenced by the wonderful increase in numbers in the last two years, are beginning to realize that Canada has a Switzerland within her own boundaries.

Appended is the meteorological record as kept by the curator of the museum.

Your obedient servant,

HOWARD DOUGLAS,

Superintendent.

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CANADIAN PACIFIC HOTEL, BANFF.

NUMBER of Visitors from July 1, 1901, to June 30, 1902.

From Where.	No.	From Where.	No.
United States.....	2,509	Greece.....	5
Canada.....	991	Queensland.....	5
England.....	360	Wales.....	3
China.....	40	Ceylon.....	3
Scotland.....	58	Bermuda.....	2
New Zealand.....	39	Denmark.....	2
Hawaiian Islands.....	34	Cape Colony.....	2
Australia.....	31	Sweden.....	2
France.....	15	Orange River Colony.....	1
India.....	13	Canary Islands.....	1
South Africa.....	13	Phillipine Islands.....	1
Ireland.....	9	Switzerland.....	1
New South Wales.....	8	Central America.....	1
Germany.....	8	Spain.....	1
Holland.....	7	West Africa.....	1
Japan.....	6		
North Breton.....	5	Total.....	4,177

NOTE.—This hotel is only open from May 14 to Oct. 1.

SANITARIUM.

NUMBER of Visitors from July 1, 1901, to June 30, 1902.

From Where.	No.	From Where.	No.
Canada.....	1,940	China.....	2
United States.....	607	Japan.....	1
England.....	58	Germany.....	1
Australia.....	32	Netherlands.....	1
Scotland.....	24	Channel Islands.....	1
New Zealand.....	17	Russia.....	1
Ireland.....	5	Fiji Islands.....	1
New South Wales.....	5	Isle of Man.....	1
South Africa.....	4		
India.....	3	Total.....	2,704

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ALBERTA HOTEL.

NUMBER of Visitors from August 31, 1901, to June 30, 1902.

From Where.	No.
Canada	501
United States	76
England	6
Total.....	583

BEATTIE HOTEL.

NUMBER of Visitors from July 1, 1901, to June 30, 1902.

From Where.	No.
Canada	477
United States.....	23
England	7
Total.....	507

GRAND VIEW HOTEL.

Number of Visitors from July 1, 1901, to November 10, 1901.

From Where.	No.
Canada.....	155
United States.....	35
Australia.....	5
England.....	3
Scotland.....	2
New Zealand.....	2
Total.....	202

NOTE.—Hotel destroyed by fire November 10, 1901.

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NUMBER of Visitors to the Rocky Mountains Park from July 1, 1901, to
June 30, 1902.

	No.
Canadian Pacific Hotel	4,177
Sanitarium	2,704
Alberta Hotel	583
Grand View Hotel	202
Cottages and Boarding Houses	850
Beattie Hotel	507
Excursion—not registered	450
Total	9,473

MUSEUM.

NUMBER of Visitors from July 1, 1901, to June 30, 1902.

From Where.	No.	From Where.	No.
Canada	1,564	New South Wales	6
United States	800	Switzerland	6
England	251	Japan	3
Scotland	35	France	3
New Zealand	29	Germany	3
Australia	27	South Africa	2
Hawaiian Islands	21	Italy	1
Ireland	11	Sweden	1
India	10		
China	8	Total	2,794
Wales	7		
Channel Islands	6		

CARETAKER of the Cave and Basin's Annual Report, showing Number and Nationality
of Visitors from July 1, 1901, to June 30, 1902.

Where From.	No.	Where From.	No.
Canada	1,769	China	14
England	207	Japan	7
Scotland	65	Germany	4
Ireland	17	Switzerland	1
Australia	76	Austria	2
Newfoundland	1	France	13
South Africa	18	Holland	1
India	9	Denmark	2
Ceylon	3		
United States	1,432	Total	3,664
Honolulu	23		

D. D. GALLETLY.

Caretaker Cave and Basin.

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ROCKY MOUNTAINS PARK.

MAXIMUM and Minimum Temperatures and the General State of the weather between July 1, 1901, and June 30, 1902.

		THERMOMETER READINGS.				
Date.		Maximum.		Minimum.		Weather.
		6 a.m.	6 p.m.	a.m.	6 p.m.	
1902.						
July	1	58.6	64.6	33.0	40.0	Fair.
"	2	60.1	58.8	39.8	43.2	Cloudy, rain, thunder.
"	3	52.6	51.4	39.5	41.8	Cloudy, rain.
"	4	50.8	60.4	42.2	43.0	Fair, light rain.
"	5	59.9	67.5	42.8	43.8	Fair, roads dry.
"	6	64.6	74.7	41.7	48.8	Fair, very light rain.
"	7	72.6	78.4	37.0	42.7	Fair, perfect day.
"	8	75.6	73.0	48.0	48.5	Cloudy, very light rain, thunder.
"	9	66.7	71.9	40.2	44.5	Fair, very light rain, thunder and lightning.
"	10	64.6	73.4	37.2	41.7	Fair, perfect day.
"	11	69.8	70.0	38.8	49.7	" "
"	12	54.5	67.4	38.1	42.7	" "
"	13	63.6	52.6	33.9	35.6	Cloudy, rain.
"	14	52.6	57.6	42.9	46.5	Cloudy, light rain.
"	15	55.9	73.3	32.1	34.5	Fair, perfect day.
"	16	70.4	71.5	36.5	39.5	Fair, very light rain.
"	17	69.6	76.3	37.0	41.0	Fair, perfect day.
"	18	73.8	78.3	38.8	45.9	Fair.
"	19	73.9	71.7	46.9	49.0	Fair, light rain, thunder.
"	20	66.7	70.0	37.7	43.5	Fair.
"	21	68.6	75.7	42.2	45.7	Cloudy.
"	22	70.8	78.9	42.2	50.8	Fair.
"	23	74.5	76.6	49.0	51.0	"
"	24	74.7	70.4	54.7	55.2	Fair, rain, thunder.
"	25	66.8	70.3	54.0	55.5	" "
"	26	59.8	59.1	47.0	46.6	Cloudy, rain, thunder.
"	27	46.9	59.3	41.8	41.5	Cloudy, rain.
"	28	56.3	62.2	43.0	42.8	Fair, light rain.
"	29	62.8	74.0	35.2	38.5	Fair.
"	30	73.6	77.6	38.8	41.8	"
"	31	76.7	78.0	43.0	47.2	"
Aug.	1	70.3	69.3	37.9	42.5	Fair, perfect day.
"	2	67.9	66.2	39.2	43.7	Fair, thunder.
"	3	65.8	76.9	36.4	39.2	Fair, perfect day.
"	4	74.8	78.2	37.9	41.8	" "
"	5	76.6	78.5	43.0	48.5	" "
"	6	73.8	67.5	44.5	46.0	" "
"	7	65.1	76.2	37.0	36.2	" "
"	8	71.6	69.9	44.6	45.0	Fair, very light rain.
"	9	68.8	65.5	40.8	43.9	Cloudy, very light rain.
"	10	60.6	67.4	36.8	41.8	Fair.
"	11	65.6	73.1	52.8	54.0	"
"	12	66.0	71.4	41.0	43.2	"
"	13	66.3	76.9	37.8	43.9	Fair, perfect day.
"	14	75.8	81.1	37.2	44.7	" "
"	15	78.6	83.5	38.8	43.7	" "
"	16	82.4	81.3	38.7	43.2	" "
"	17	77.6	72.4	49.1	50.8	" "
"	18	70.4	74.1	28.0	35.4	" "
"	19	70.8	75.0	34.2	41.7	" "
"	20	69.0	58.3	39.0	40.8	Cloudy, light rain, thunder and lightning.
"	21	57.9	70.1	35.5	37.1	Fair.
"	22	67.6	62.7	36.1	39.7	Cloudy, squally wind.
"	23	50.4	75.0	40.8	41.6	Fair, squally wind.
"	24	63.8	62.7	49.5	48.3	Fair, rain.
"	25	55.7	75.0	50.2	50.5	Fair, thunder and lightning, rain.

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MAXIMUM and Minimum Temperatures, &c.—Continued.

THERMOMETER READINGS.					
Date.	Maximum.		Minimum.		Weather.
	6 a.m.	6 p.m.	6 a.m.	6 p.m.	
1901.					
Aug. 26....	61.1	71.0	37.6	39.8	Fair, very light rain, thunder.
" 27....	58.6	61.4	44.1	44.2	Cloudy, rain, double rainbow.
" 28....	55.5	67.8	41.6	42.0	Fair.
" 29....	64.7	72.6	36.2	38.0	Fair, perfect day.
" 30....	68.7	76.3	35.9	36.5	"
" 31....	72.6	74.4	41.6	42.8	Fair, light rain, very squally wind.
Sept. 1....	70.6	72.4	38.1	39.5	Cloudy, rain, thunder.
" 2....	56.8	57.3	44.0	43.8	Cloudy, rain.
" 3....	55.7	68.0	36.8	37.8	Fair, lightning, perfect day.
" 4....	63.2	44.4	42.2	41.7	Cloudy, rain, snow on mountains.
" 5....	43.3	40.7	39.5	35.5	Cloudy, light rain, snow flurries.
" 6....	39.2	43.8	33.8	33.8	Cloudy, snow flurries, light rain.
" 7....	39.9	46.8	33.5	33.2	Cloudy.
" 8....	43.2	52.6	29.3	30.4	Fair, light rain.
" 9....	44.3	49.9	39.5	39.3	Cloudy, rain.
" 10....	41.9	53.9	34.8	34.8	Cloudy, light rain.
" 11....	44.9	53.3	38.5	37.8	Fair, rain.
" 12....	44.9	55.1	31.8	33.5	Fair.
" 13....	51.7	57.4	42.8	43.0	"
" 14....	52.6	54.3	35.9	36.5	Fair, squally wind, light soft hail.
" 15....	47.2	47.7	32.1	32.8	Cloudy.
" 16....	45.4	52.1	25.2	25.5	Fair, hoar frost.
" 17....	48.0	55.3	25.2	26.0	Fair.
" 18....	51.7	55.7	37.2	38.0	"
" 19....	48.9	63.7	27.2	30.5	Fair, perfect day.
" 20....	53.9	63.8	31.1	32.5	Fair.
" 21....	57.6	48.7	42.0	41.0	Cloudy light rain.
" 22....	43.7	48.4	33.5	33.0	Cloudy, rain.
" 23....	38.7	35.3	28.5	27.0	Cloudy, snow and rain.
" 24....	33.4	47.8	28.8	27.8	Fair, perfect day.
" 25....	41.7	44.2	30.0	29.7	Cloudy, light rain.
" 26....	41.7	49.1	31.0	30.8	"
" 27....	43.9	50.3	35.5	35.2	Cloudy, rain.
" 28....	36.7	42.3	26.5	25.5	Fair, hoar frost, snow flurries and light snow.
" 29....	35.6	45.8	20.5	19.4	Fair, perfect day, ice on still water, hoar frost.
" 30....	39.9	52.0	25.5	25.1	Fair, perfect day, hoar frost.
Oct. 1....	48.5	60.3	27.1	27.0	"
" 2....	55.3	62.1	27.6	27.4	"
" 3....	48.9	63.4	27.2	27.1	"
" 4....	48.7	64.7	25.7	25.6	"
" 5....	48.8	64.3	27.0	26.8	"
" 6....	57.8	57.1	28.2	28.0	Fair, hoar frost, squally wind.
" 7....	52.8	56.5	46.2	46.8	Cloudy, thunder, light rain.
" 8....	51.2	47.2	38.4	38.7	Cloudy.
" 9....	42.7	43.8	24.5	24.2	"
" 10....	41.0	47.8	30.2	29.8	Cloudy, light rain, squally wind.
" 11....	45.9	48.0	33.7	33.5	Fair.
" 12....	43.5	55.8	27.5	27.2	Fair, perfect day.
" 13....	51.9	58.1	31.8	32.5	Cloudy.
" 14....	54.8	36.2	34.5	33.3	Cloudy, light rain and snow.
" 15....	34.6	53.3	23.0	22.1	Fair, perfect day.
" 16....	50.0	55.4	28.2	27.2	Fair, perfect day, hoar frost.
" 17....	55.4	60.0	30.1	29.9	Fair, perfect day, squally wind.
" 18....	56.7	60.3	28.0	26.8	Fair, perfect day, hoar frost.
" 19....	55.9	60.1	40.5	40.2	Fair, perfect day.
" 20....	54.7	58.3	51.0	50.3	Fair, squally wind.
" 21....	53.2	60.3	46.8	46.0	Fair, squally wind, magnificent sunset.
" 22....	56.9	60.0	39.8	39.1	Fair, perfect day, <i>vanessa antiopa</i> butterfly about, some asters, <i>potentillas</i> , &c., still in flower.
" 23....	45.7	59.5	28.2	27.2	Fair, perfect day, hoar frost.
" 24....	43.5	59.0	28.5	27.4	Fair, squally wind, hoar frost.

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MAXIMUM and Minimum Temperatures, &c.—*Continued.*

THERMOMETER READINGS.					
Date.	Maximum.		Minimum.		Weather.
	6 a.m.	6 p.m.	6 a.m.	6 p.m.	
1901.	°	°	°	°	
Oct. 25....	54.9	57.1	44.4	44.8	Cloudy.
" 26....	52.7	52.9	29.0	27.8	Fair, perfect day, hoar frost.
" 27....	40.7	56.9	27.2	26.6	Cloudy.
" 28....	51.4	48.3	40.5	39.1	Fair.
" 29....	43.5	41.3	40.8	33.5	Cloudy, very gusty wind, snowstorm, snow mostly melting as falling.
" 30....	33.6	37.9	32.5	31.3	Fair, very light snow.
" 31....	32.5	44.8	25.4	25.3	Cloudy.
Nov. 1....	43.7	35.8	26.0	25.3	Cloudy, snow.
" 2....	28.3	23.8	8.7	7.8	Cloudy, snowbirds, juncos and crows about.
" 3....	21.0	33.2	13.8	16.5	Cloudy.
" 4....	32.5	42.8	30.9	32.0	"
" 5....	40.7	31.1	30.7	29.5	Cloudy, snow flurries.
" 6....	25.0	36.9	18.2	17.5	Cloudy.
" 7....	34.9	38.1	30.5	29.5	Cloudy, snow flurries.
" 8....	29.8	33.5	29.5	19.3	Fair, grosbeaks about.
" 9....	27.7	30.8	13.2	11.5	Cloudy, skating on small ponds.
" 10....	28.8	30.1	24.5	23.2	Cloudy, very light snow, Bow river frozen partly.
" 11....	25.4	29.6	11.6	13.5	Cloudy, snow flurries.
" 12....	27.8	34.8	27.2	26.3	Cloudy, snow, 4 inches on ground by 6 p.m.; first sleighing, but not good.
" 13....	31.7	34.3	30.7	28.5	Cloudy, snow, red-naped sapsucker about.
" 14....	28.6	33.0	16.8	15.2	Fair, Bow river frozen over, mostly.
" 15....	26.8	33.0	16.5	15.9	Fair.
" 16....	38.6	38.9	30.5	29.7	Fair, rainbow, very light rain.
" 17....	35.9	36.3	29.8	28.8	Fair, light snow.
" 18....	31.8	25.9	12.5	9.1	Fair, lunar halo.
" 19....	22.2	34.2	14.2	16.5	Cloudy.
" 20....	32.8	27.7	15.9	17.5	Cloudy, light snow, grosbeaks and sapsuckers about.
" 21....	21.9	34.1	20.2	18.7	Fair, snow flurries.
" 22....	29.5	32.9	23.6	23.1	Cloudy, light snow, red-naped sapsucker about.
" 23....	27.7	33.2	21.5	19.9	Fair.
" 24....	30.8	34.2	28.5	27.8	"
" 25....	30.6	27.0	15.2	13.3	"
" 26....	27.8	36.1	10.8	13.5	Fair, squally wind.
" 27....	34.2	45.6	33.8	34.2	Fair, thaw, Bow river breaking up, snow going fast.
" 28....	45.7	44.2	36.7	31.8	Fair, perfect day, Lake Minnewanka not frozen over yet, pileated woodpecker about.
" 29....	43.9	47.1	36.0	34.4	Fair, thaw, sleighing only in places.
" 30....	39.9	40.0	36.8	34.2	Fair, slippery walking.
Dec. 1....	37.0	39.8	32.2	32.5	Cloudy, squally wind, snow flurries.
" 2....	32.4	28.3	19.2	17.7	Cloudy, hoar frost.
" 3....	27.4	29.1	23.0	20.9	Fair.
" 4....	25.6	36.5	23.2	22.9	Cloudy.
" 5....	33.4	30.9	26.0	22.2	Fair.
" 6....	22.4	25.0	6.0	5.0	Cloudy, woodpeckers about.
" 7....	22.6	26.4	12.2	10.5	Cloudy, skating on part of river.
" 8....	27.2	30.9	25.5	23.9	Fair.
" 9....	26.6	14.4	7.5	6.5	Fair, waxwings about.
" 10....	9.8	9.8	1.5	0	Fair.
" 11....	6.0	11.5	-4.3	-5.9	Fair, Lake Minnewanka frozen partly.
" 12....	5.0	20.2	-1.0	-3.5	Cloudy.
" 13....	15.8	11.1	6.7	5.1	Cloudy, light snow.
" 14....	16.0	26.4	10.2	13.7	Fair, light snow.
" 15....	25.8	26.8	20.4	19.1	Cloudy, light snow, waxwings about.
" 16....	25.4	22.3	16.9	15.7	Fair.
" 17....	21.6	34.8	20.0	19.3	Cloudy, chinook wind, roads bare of snow in places, snow flurries, Lake Minnewanka free of ice.
" 18....	36.0	33.0	29.5	27.7	Fair.
" 19....	29.6	27.2	6.3	5.3	"
" 20....	26.1	26.4	21.0	19.9	Fair, squally wind.

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MAXIMUM and Minimum Temperatures, &c.—Continued.

THERMOMETER READINGS.					
Date.	Maximum.		Minimum.		Weather.
	6 a.m.	6 p.m.	6 a.m.	6 p.m.	
Dec. 21....	32.0	35.3	23.7	28.7	Cloudy, squally wind.
" 22....	32.6	34.2	25.0	23.5	Cloudy, light snow.
" 23....	33.8	31.1	28.8	25.9	" "
" 24....	28.5	30.2	26.5	25.1	" "
" 25....	26.3	27.0	21.2	18.2	Cloudy, squally wind.
" 26....	27.8	30.4	24.2	23.0	Cloudy, snow.
" 27....	25.8	27.9	18.0	16.5	Cloudy, very squally, chinook wind.
" 28....	30.0	38.5	26.7	29.0	" "
" 29....	37.0	49.3	36.5	35.9	Fair, very squally, chinook wind.
" 30....	4.8	34.9	27.7	25.3	Fair.
" 31....	32.0	37.1	15.3	17.2	Fair, squally wind, ice on Bow river from 4 to 6 inches.
1902.					Lake Minnewanka not frozen over yet, water onsl about
Jan. 1....	35.6	19.8	22.9	10.1	Fair.
" 2....	10.2	36.1	-0.1	10.7	Cloudy, very light snow.
" 3....	34.5	41.3	32.0	34.5	Fair, snow flurries.
" 4....	35.8	34.8	29.2	29.7	Fair, snow flurries, first good sleighing.
" 5....	30.8	32.2	29.8	31.2	Cloudy, snow.
" 6....	31.0	29.7	29.2	25.0	Fair.
" 7....	26.8	36.7	25.5	24.8	Cloudy, light rain and snow.
" 8....	33.1	34.2	24.0	22.8	Fair, much ice and icicles on trees, etc.
" 9....	30.0	26.3	26.0	20.6	Fair, snow flurries.
" 10....	23.8	30.0	10.2	11.2	Cloudy.
" 11....	29.8	34.2	15.8	15.9	Fair.
" 12....	30.6	31.1	12.4	10.4	"
" 13....	26.6	31.1	15.7	14.8	"
" 14....	28.0	30.2	22.4	19.8	"
" 15....	29.1	34.0	16.0	13.8	"
" 16....	33.8	26.8	12.2	10.0	"
" 17....	25.6	25.0	12.5	10.7	"
" 18....	22.8	26.1	17.2	14.0	Fair, lunar halo.
" 19....	19.6	23.2	6.2	4.5	Cloudy.
" 20....	17.2	23.2	-2.5	-4.7	Fair. Lunar parhelia.
" 21....	20.6	21.2	13.0	9.7	Fair, light snow.
" 22....	12.0	20.2	-0.8	-4.9	Fair.
" 23....	11.8	18.0	0	-6.9	Cloudy, light snow, gusty wind.
" 24....	-6.2	-17.2	-17.1	-21.2	Cloudy, Lake Minnewanka frozen over, gusty wind.
" 25....	-19.5	-4.5	-38.3	-41.0	Fair.
" 26....	-6.2	-6.8	-27.4	-30.9	"
" 27....	-7.2	-2.2	-24.1	-27.8	"
" 28....	-4.0	4.3	-16.8	-20.6	"
" 29....	0	11.2	-8.5	-6.1	Fair, snow flurries, parhelia.
" 30....	6.8	8.8	-10.2	-12.1	Fair, snow flurries.
" 31....	4.0	12.0	-7.3	-6.5	Cloudy, light snow. Bow River ice 16 to 20 inches.
Feb. 1....	-1.2	5.8	-21.4	-25.6	Fair.
" 2....	15.0	14.1	-2.2	1.2	"
" 3....	12.0	22.2	-4.0	3.9	Cloudy.
" 4....	20.6	31.0	15.2	13.3	Fair.
" 5....	26.4	29.8	18.5	17.3	"
" 6....	26.0	23.9	1.9	-0.1	Fair, very light snow.
" 7....	18.5	2.6	6.8	-1.2	Cloudy, gusty wind, snow flurries.
" 8....	-0.9	14.5	-5.4	-6.9	Fair, snow flurries.
" 9....	8.6	27.8	-5.4	-2.6	Cloudy "
" 10....	26.6	33.2	22.6	21.9	Fair.
" 11....	25.8	28.3	5.8	5.2	"
" 12....	26.3	23.8	0.1	-4.5	"
" 13....	14.8	28.0	2.0	0.1	"
" 14....	24.7	28.0	7.2	6.6	Cloudy.
" 15....	23.4	27.0	10.3	12.2	Cloudy, snow flurries.

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MAXIMUM and Minimum Temperatures, &c.—*Continued.*

Date.	THERMOMETER READINGS.				Weather.
	Maximum.		Minimum.		
	6 a.m.	6 p.m.	6 a.m.	6 p.m.	
1902.					
Feby. 16 ...	35.0	47.2	15.1	35.0	Cloudy, thaw, rain, snow and sleet; grosbeaks, Oregon chickadees, &c., about. Shushy walking, sleighing becoming bad.
" 17....	44.7	43.2	34.5	34.0	Cloudy, thaw, mosquito about.
" 18....	41.0	37.7	31.5	25.8	Fair.
" 19....	34.6	40.2	22.2	20.5	"
" 20....	35.6	43.3	27.5	26.8	Cloudy, squally wind.
" 21....	38.9	38.8	29.5	28.3	Cloudy, snow flurries.
" 22....	34.8	34.2	16.5	10.4	Fair, perfect day.
" 23....	30.8	35.1	7.1	6.1	"
" 24....	30.4	37.1	19.6	21.5	Cloudy, snow flurries, ice on Bow River 20 inches thick.
" 25....	32.6	38.7	25.7	27.0	Fair.
" 26....	33.8	40.6	27.0	27.8	Fair, light snow.
" 27....	29.6	37.8	18.0	16.9	"
" 28....	33.8	36.8	18.2	17.8	Fair, ice on Bow 19 to 19½ inches.
Mar. 1....	31.8	35.9	9.8	9.2	Fair.
" 2....	31.8	33.7	12.4	10.8	Fair, light snow.
" 3....	29.5	34.6	18.2	17.3	Fair.
" 4....	30.6	37.9	25.4	26.4	Cloudy, snow.
" 5....	30.8	19.2	19.2	13.8	Cloudy, snow, sleighing good again.
" 6....	14.6	23.3	0.8	3.0	Cloudy.
" 7....	25.0	37.2	19.7	23.4	"
" 8....	33.4	37.9	28.9	28.5	Cloudy, ice 2 feet thick on Lake Minnewanka.
" 9....	35.5	36.2	27.9	27.7	Cloudy, snow flurries, gusty wind.
" 10....	31.8	38.8	29.6	30.2	Cloudy, brilliant meteor fell 8.15 p.m.
" 11....	34.8	39.8	28.7	29.9	Fair, very squally wind.
" 12....	39.8	37.3	31.0	29.5	Cloudy, very squally wind, light snow.
" 13....	32.4	31.0	21.5	14.8	Fair, parhelia.
" 14....	23.6	12.6	1.8	-3.2	Cloudy, snow flurries, squally wind.
" 15....	14.3	3.3	-1.4	-4.0	Fair, very light snow.
" 16....	-2.5	25.6	-19.4	-23.3	Fair.
" 17....	25.7	35.3	19.2	20.0	Cloudy, snow.
" 18....	32.6	32.8	18.0	17.4	" "
" 19....	27.6	34.8	10.5	9.9	Fair.
" 20....	29.8	36.2	12.0	10.0	"
" 21....	33.4	38.2	8.0	6.8	"
" 22....	33.8	34.2	15.0	14.2	"
" 23....	29.4	35.9	0.5	-0.7	Fair, perfect day, house flies about.
" 24....	30.3	38.8	1.0	0.2	Fair, perfect day.
" 25....	35.0	40.4	3.9	4.3	Fair.
" 26....	35.1	38.8	16.5	15.8	Fair, very light rain and snow.
" 27....	34.5	29.7	17.6	18.2	Cloudy, light snow.
" 28....	23.1	28.4	4.2	7.5	Fair.
" 29....	25.9	30.8	-0.2	-1.6	Fair, western robin about, geese flying north.
" 30....	29.6	35.1	-0.7	-2.2	Fair, perfect day.
" 31....	32.6	41.4	3.5	2.5	Fair, perfect day, ice on Bow River about 12 inches thick.
April 1....	38.7	47.2	8.3	12.5	Fair, 6½ inches of snow on ground.
" 2....	43.2	44.3	16.5	15.9	Fair, Bow River breaking up slightly.
" 3....	42.0	47.6	20.0	19.2	Fair, parhelia, mountain bluebirds about, sleighing bad.
" 4....	42.7	43.3	28.9	29.5	Fair, village road muddy.
" 5....	40.1	40.7	33.8	33.3	Cloudy, snow flurries.
" 6....	38.0	45.4	22.0	24.2	Cloudy, sleighing only on sheltered roads.
" 7....	42.0	51.1	33.2	33.5	Cloudy, rain.
" 8....	36.0	34.2	26.0	25.8	Fair, Oregon juncos about.
" 9....	29.3	33.2	24.4	23.6	Cloudy, snow flurries.
" 10....	29.8	35.8	23.8	22.6	Fair, no sleighing, aurora, snow in patches mostly, duck on river, Bow River open partly.
" 11....	34.4	46.8	11.8	12.6	Fair, solar coronae.
" 12....	44.7	41.9	27.9	29.5	Cloudy, light snow.
" 13....	32.6	40.8	30.5	30.0	Fair, redpolls about.

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MAXIMUM and Minimum Temperatures, &c.—Continued.

THERMOMETER READINGS.					
Date.	Maximum.		Minimum.		Weather.
	6 a.m.	6 p.m.	6 a.m.	6 p.m.	
April 14....	40.7	42.9	30.2	29.0	Fair, purple finches about.
" 15....	40.7	46.3	23.2	22.2	Fair, perfect day, anemone patens var. in bloom.
" 16....	43.9	51.8	25.5	24.9	Fair.
" 17....	46.0	49.2	37.5	36.8	"
" 18....	46.5	52.9	28.0	27.2	Fair, Bow River nearly free of ice.
" 19....	48.9	49.3	35.8	37.3	Cloudy, rain.
" 20....	42.6	43.3	23.0	22.2	Cloudy, soft hail.
" 21....	35.2	44.3	29.8	28.9	Cloudy, grass and sedge becoming green, river gradually rising.
" 22....	39.7	42.8	23.2	22.3	Fair, snow flurries.
" 23....	39.4	45.8	21.8	21.2	Fair.
" 24....	41.9	41.8	28.5	27.8	Fair, light snow.
" 25....	35.4	48.3	26.2	25.8	Fair.
" 26....	46.6	49.8	24.4	24.4	"
" 27....	46.5	50.7	30.3	29.5	Cloudy, no snow on ground.
" 28....	45.0	47.2	28.3	27.6	Fair, light rain, soft hail and snow flurries.
" 29....	44.6	46.2	28.5	27.9	Cloudy.
" 30....	40.6	50.4	28.2	27.8	Cloudy, light rain and snow.
May 1....	45.9	35.2	33.5	32.9	Cloudy, snow, vesper sparrow about.
" 2....	34.4	39.5	32.8	32.1	Cloudy, snow about 15 inches on ground.
" 3....	34.9	42.1	30.9	30.2	Fair, snow about 10 inches on ground.
" 4....	38.7	48.0	28.8	28.3	Fair, about 4 inches of snow on ground.
" 5....	43.9	51.4	30.5	30.0	Fair, frogs piping, honey bees about.
" 6....	49.4	59.9	28.2	28.5	Fair, perfect day, butterflies about, mosquito larvæ in ponds, snow in patches, roads dry.
" 7....	57.6	52.9	28.8	29.5	Cloudy, light rain.
" 8....	45.7	53.4	33.5	33.1	Cloudy.
" 9....	51.5	61.1	30.8	32.5	Fair.
" 10....	59.9	56.9	29.7	30.6	Fair, light rain.
" 11....	51.0	50.7	40.0	39.8	Cloudy, rain, Audubon's warbler about.
" 12....	48.2	58.4	28.0	30.0	Fair, anemone parviflora in bloom.
" 13....	57.7	69.9	33.4	34.4	Fair, fragaria glauca in bloom, belted kingfisher about, river rising rapidly.
" 14....	68.0	60.6	36.3	37.8	Cloudy, light rain, thunder.
" 15....	53.9	53.2	43.4	43.2	Cloudy, rain, Dodonæa Meadia, primula Mistassinica and dandelions in bloom.
" 16....	52.8	54.6	42.8	43.0	Cloudy, leaves appearing on trees and bushes.
" 17....	51.1	56.4	29.5	30.6	Cloudy, corydalis aurea in bloom.
" 18....	53.6	39.5	39.2	37.0	Cloudy, rain, ice out of Lake Minnewanka, Bow River high, snow at night.
" 19....	36.9	55.0	33.0	32.8	Cloudy.
" 20....	50.9	44.0	40.5	40.3	Cloudy, rain.
" 21....	41.9	53.4	39.0	38.8	"
" 22....	49.9	60.4	41.6	41.7	Cloudy, rain during night.
" 23....	58.8	53.0	44.1	41.2	Cloudy, rain.
" 24....	47.4	51.2	36.8	37.7	Cloudy.
" 25....	47.2	61.3	30.0	31.5	Fair.
" 26....	58.9	72.4	43.0	45.2	Fair, perfect day.
" 27....	69.2	77.9	34.5	38.7	Fair, perfect day, very light rain, calypso borealis in bloom.
" 28....	69.6	65.5	44.5	48.5	Cloudy, light rain.
" 29....	58.8	59.3	44.5	44.3	"
" 30....	52.2	49.4	36.0	35.2	Fair, snow flurries, squally wind.
" 31....	48.5	55.2	27.3	28.5	Fair, very light rain.
June 1....	49.5	53.3	39.4	40.3	Cloudy, rain, grouse drumming.
" 2....	47.0	43.4	34.0	33.7	Cloudy, rain and snow.
" 3....	43.6	54.9	35.1	35.5	Cloudy, rain and hail.
" 4....	49.7	53.3	35.7	36.2	Cloudy, very light rain, fishing good.
" 5....	46.3	46.2	34.5	34.8	Cloudy, rain and snow.
" 6....	43.9	55.3	35.8	36.5	Fair, light rain, rainbow.

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MAXIMUM and Minimum Temperatures, &c.—*Concluded.*

THERMOMETER READINGS.					
Date.	Maximum.		Minimum.		Weather.
	6 a.m.	6 p.m.	6 a.m.	6 p.m.	
1902.	°	°		°	
June 7.....	52.0	61.7	28.3	30.5	Fair, aspen poplars in leaf, grouse laying eggs and sitting, wild geese and ducks' young mostly hatched.
" 8.....	50.6	66.4	48.7	49.5	Fair, rain.
" 9.....	52.7	70.3	38.2	40.1	Fair, very light rain.
" 10.....	63.8	62.0	39.8	41.2	Fair, squally wind.
" 11.....	57.1	60.9	38.3	40.5	Fair, very light rain, woodpeckers building.
" 12.....	56.5	59.0	28.2	31.5	Cloudy, rain.
" 13.....	49.8	50.1	35.8	36.2	"
" 14.....	42.9	53.7	34.9	35.5	Cloudy, very light rain.
" 15.....	48.7	54.5	32.0	32.9	Cloudy, thunder, light rain and soft hail.
" 16.....	47.1	45.7	37.1	37.3	Cloudy, very light rain.
" 17.....	43.6	55.0	34.0	34.8	Cloudy, soft hail, swallows about.
" 18.....	54.1	42.9	31.9	32.0	Cloudy, snow, patches of snow on ground at 6 p.m.
" 19.....	42.0	55.5	24.8	25.7	Fair, ice on still water.
" 20.....	51.9	66.2	25.9	26.9	Fair, hoar frost, perfect day.
" 21.....	62.6	72.3	33.2	37.2	Fair.
" 22.....	68.5	70.9	36.2	39.0	Fair, light rain.
" 23.....	67.0	69.3	51.0	50.9	Cloudy, rain.
" 24.....	56.5	56.7	48.2	48.5	"
" 25.....	55.4	58.1	44.8	45.0	"
" 26.....	51.9	54.0	45.2	45.4	Cloudy, rain, roads very muddy.
" 27.....	45.9	55.5	40.3	41.8	Cloudy, light rain.
" 28.....	53.8	69.5	36.2	42.5	Fair.
" 29.....	66.9	67.5	35.8	38.6	Fair, rain, thunder, river very high.
" 30.....	51.8	55.7	45.2	45.8	Cloudy, rain.

NORMAN B. SANSON,

Observer.

PART VI.

SUPERINTENDENT OF MINES

SUPERINTENDENT OF MINES

REPORT OF DR. EUGENE HAANEL.

DEPARTMENT OF THE INTERIOR,
OTTAWA, July 31, 1902.

To the Honourable CLIFFORD SIFTON,
Minister of the Interior,
Ottawa.

SIR.—I have the honour to submit the following report upon the operations of the Superintendent of Mines' Office for a period from the 16th of June, 1901, to the 30th of June, 1902.

On my appointment to the position of Superintendent of Mines, I received instructions from you to establish an assay office for the Dominion government at Vancouver, B.C., and on my way to New York, for the purpose of collecting the necessary plant, to inspect some of the more prominent museums in the east of the United States with a view of preparing plans for the Victoria Memorial Museum, on my return from Vancouver.

In accordance with these instructions I proceeded on June 16, 1901, in company with Mr. Ewart, the chief architect, to visit and inspect the Museums of Yale and Harvard Universities and the Museum of Natural History of New York. The time which could be spared from the more important mission of expediting the business of the Assay Office was, however, so limited that the attempt of visiting other museums than the above mentioned had to be abandoned.

But even in the short time spent in inspecting these buildings many valuable ideas were obtained regarding the most suitable size of rooms and height of ceilings, the proper height, width and disposition of windows for effectively lighting the interior and the best manner of mounting and exhibiting specimens.

On June 19, Mr. Ewart returned to Ottawa from New York, enabling me to give my full time and attention to matters connected with the establishment of the Assay Office, which was to be ready for business, if possible, by July 15.

ESTABLISHMENT OF ASSAY OFFICE, VANCOUVER, B.C.

I proceeded at once to find a capable man to act as assayer and gather the necessary plant. I was fortunate enough to find the right man in the person of Charles S. Hurter, a graduate of the Massachusetts Institute of Technology, of six years' standing, who had had considerable experience in gold-assaying and who came to me well recommended by Professor Richards, of the Mining Department of the Massachusetts Institute of Technology. I had a personal interview with Mr. Hurter and assured myself of his fitness and finally engaged him by wire from New York on June 20 last, at a salary of \$1,200 per annum and travelling expenses from Boston to Vancouver.

Considerable difficulty was experienced in gathering the plant. The apparatus required for an Assay Office is not usually kept in stock, but is manufactured to order and some of the parties, from whom I expected to buy, claimed that they were busy in

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constructing the assay plant for the new United States Mint in Philadelphia, of which order several pieces were ready for shipment. In consequence of this press of business, they were unwilling to fill an additional order in less time than from three to four weeks. It was, of course, impossible to wait that length of time, since this would have defeated the plan of having the Assay Office in operation at the specified time to render it of practical value to Vancouver for this year. Considerable effort was, therefore, required to induce the manufacturers to ship the goods in hand within three days, but an agreement to this effect was finally reached and the orders placed. The balances were purchased from Henry Troemner, Philadelphia, the furnaces and crucibles and air-blast from the American Gas Furnace Company, New York, the chemicals and glassware from Eimer & Amend and electric motor from agent in New York representing the Wagner Electric Motor Company, of St. Louis. Discounts were allowed on these purchases, amounting to from 15 to 50 per cent.

While in Philadelphia, I took the opportunity to visit the United States Mint for the purpose of inspecting the Assaying Department and familiarizing myself with the routine of the office work in connection with this department. In New York I examined the Assay Office of the Sub-Treasury Department and obtained from the authorities copies of the blanks made use of in receipting and accounting for the bullion passing through the office.

On June 19, I left with Mr. Hurter, who had joined me in New York, for Vancouver, B.C., by way of Seattle, Washington, where I arrived on June 27. That same day I presented the letter of introduction from Secretary Gage to the Chief Assayer of the Seattle Assay Office, with the request that I be permitted to examine the office in detail. Every courtesy was shown me by the staff and all asked for information given me. I was permitted to carry away with me specimens of the entire set of blanks used in their office.

I reached Vancouver on the morning of June 29, and proceeded at once to call on Mr. George R. Maxwell, M.P., with a view of obtaining his assistance in the selection of premises suitable for the Assay Office.

A search was at once instituted for the right kind of premises, but of the many examined none seemed suitable (either on account of deficiency in floor space to accommodate the plant, or on account of want of flues for the furnaces, of which four at least were required) with the exception of one store situated on Hastings Street which had the requisite floor space, but was divided from a similar store by a wooden partition. By erecting a brick wall to replace the wooden one, constructing five flues and building a fire proof vault, the building would be rendered suitable for an assay office.

Mr. Thomas A. Fee, the owner, on having the matter properly put before him, consented to make these alterations and improvements on condition that the government lease the building for ten years and pay a monthly rental of \$150. After some consultation on the matter of rental, Mr. Fee finally agreed to lease the building for five years at a rental of \$100 per month.

The building of the wall, flues and vault was at once entered upon, the floor space was laid out for the areas required for the different rooms and contracts made for building the partitions, counter and other required wood-work, painting, plumbing and masonry. The front window was lettered in gold 'Dominion of Canada Assay Office.' The same inscription was ordered to be placed on the side wall of the building in large white letters upon black ground, which could be seen and read from any part of Hastings street, when approaching it from Greenville street. Grilles were designed to shut the public off from the space where the gold was handled in weighing and melting and yet give the depositor an opportunity to witness, if he so desired, the operations through which his deposit passed. Three grilles were constructed in Vancouver and were the first ever made there. In planning the interior of the Assay Office, I aimed so to arrange the rooms that, though perfectly secure from the public, all the operations through which the bullion passed could be witnessed by parties standing before the grille and by the staff within the grille, so that the members of the staff would feel

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themselves to be under continued observation. It is evident that this is a matter of great importance when the staff is small and large quantities of bullion are being handled; moreover, such an arrangement, I was sure, would tend to awaken the interest of the public and strengthen their confidence and faith in the operations of the office. To accomplish this most effectively I had the partitions constructed partly of glass, so that from any part of the floor-space within the grilles where the bullion was being operated upon and from the space reserved for the public the movements of any party could be observed.

Plans of Assay Office and views of its interior are appended.

I was fortunate enough to be able to borrow a safe from the Canadian Bank of Commerce to serve the present needs of the office.

A pouring table and also a crane for lifting the heavy crucibles out of the furnace were specially designed and constructed.

Contracts on very favourable terms were made with the British Electric Railway Company and the Vancouver Gas Company to furnish electricity for lighting and power and gas for the blast furnaces.

Every part of the work done was personally supervised by myself, and in order to complete the work in the required time it became necessary to have the contractor divide his men on several occasions into day and night shifts.

The plant, when in position, was properly tested and found to operate satisfactorily.

Blanks for assay certificates, receipts of bullion, assayers' report, melter's book and identification cards were designed much on the plan adopted by the United States assay offices and printed in Vancouver for the use of the office.

The official ingot stamp, used for stamping ingots with the legend 'Dominion of Canada Assay Office, Vancouver, B.C.' was made to order in Seattle, Wash.

On account of the delay in forwarding the plant by the Canadian Pacific Railway, the Assay Office was not completed until July 26, when it was opened with appropriate ceremonies, in which many prominent citizens of Vancouver took part. Great satisfaction was expressed by all parties present with the action of the government in establishing the Assay Office in Vancouver and many generous remarks were made on that occasion regarding the celerity with which the government had carried out its promises in this respect.

It seemed advisable for the present to limit the staff to a manager, two assayers, one melter and one janitor, who was also to act as watchman, and increase the staff as future necessity of the office would demand.

Mr. Thomas McCaffry, as manager, and Mr. J. B. Farquhar, as assistant assayer, had already been appointed by the department at salaries of \$2,500 and \$1,100 respectively, and Mr. Hurter by myself, as assayer, at a salary of \$1,200 per annum. It remained to find proper persons for melter and janitor. For the former position the foreman of the Canadian Pacific Railway shops at Vancouver, Mr. G. Middleton, was chosen at a salary of \$1,200 per annum, and for the latter, Mr. D. Robinson, of the same shops, at a salary of \$720 per annum. They are both men of sterling character and of mechanical ability.

After the completion of the office and the public inauguration of the same, I called the staff together and instructed them in their respective duties, an outline of which I had drawn up in typewritten copies, one of which I handed to each. The instructions are so framed that every operation is performed by two parties, who thus serve as checks upon each other. The following is a copy of these instructions:—

INSTRUCTIONS GOVERNING THE OPERATION OF THE DOMINION OF CANADA ASSAY OFFICE.

The manager is to have general oversight over the staff of the assay office and is responsible for the proper discharge of the functions of the several members of the staff. He is to keep account of all income and expenditures and to keep record of all

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assays and assay transactions. He is to ascertain the weight of bullion deposited before and after melting and furnish receipt for same to depositors, to calculate assaying, melt and mint charges and actual value of gold deposited, and furnish certificate of same to depositor, to weigh the clippings for assaying and charge same to assayers and credit them to the account of assayers on their return.

It will be the duty of assayers to ascertain the fineness of the gold deposited from clippings taken under the supervision of the manager, or chief melter, to report the same on blanks furnished by the office to the manager, and to check the calculations of assay and mint charges and actual value of gold deposited. Assayers will see to it that their laboratory and balance room are kept in neat condition, that every tool and piece of apparatus has its assigned place and is kept in such place, when not in immediate use.

It is the duty of the melter to check the weight of bullion deposited, as ascertained by manager before and after melting, to melt and cast the bullion and prepare ingot for stamping, to assist assayers in obtaining their clippings for assay purposes and to stamp ingot with 1st: Melt Number, 2nd: Stamp of Assay Office, and 3rd: Weight of gold and silver contained in bar, to take charge of all machinery and keep it in good working condition and to aid with his mechanical knowledge in the perfecting and facilitating of the mechanical operations of the office.

It is the duty of the janitor to keep the office and laboratories attached to same in good order, to assist the melter and assayers when needed, to go on errands, if so directed by manager, to open the office at regular office hours and close office, locking all grilles securely on termination of office hours, to sleep in building in room assigned for the purpose and act as general interior watchman of office.

PROCEDURE OF RECEIVING, ASSAYING AND REPORTING BULLION.

Bullion is to be weighed in the presence of depositor, checked by chief melter, transferred to bullion box and locked. Melt number assigned to deposit written on card is placed in receptacle on bullion box, melt number to start from number 1, proceeding by units for each melt. This melt number serves to identify the deposit through all the operations the deposit undergoes and appears in all reports of and receipts for the same.

Receipt for weight of bullion deposited is given to the depositor and his signature is taken on special card prepared for the purpose and kept by manager on file for identification purposes.

The bullion box is opened by the chief melter in the presence of either the manager, one of the assayers, or janitor, (at the option of the manager) transferred to crucible, melted, slagged, prepared for stamping and stamped with melt number. After thorough drying the bar is weighed by melter, checked by manager, and weight ascertained as recorded by manager as weight after melting.

For purposes of assay clippings are taken in the presence of the manager or chief melter from the corners of the bar. The solid angles removed by the clippings must be on the diagonal passing through the bar. The truncated corners are then stamped with the letter 'A.' The clippings are weighed on balance set apart for this purpose and charged by manager to assayers. Two parallel sets of assays are then run off each melt, one by each assayer, and report must not be made of result of assay unless both agree to within 1-50 of 1 per cent. Proof assay to check results must accompany each set of assays made. In case agreement cannot be reached the ingot must be remelted, thoroughly stirred and the assay repeated. The report made to the manager of the fineness of gold and silver must exhibit every detail of the operation, i.e., all weightings made.

After clipping, ingot is transferred to safe until such time as report is received from assayers as to its fineness, when it is removed to melting-room, stamped with office

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stamp and weight in ounces and decimals of ounces of silver and gold contained in ingot, and finally stored in safe until called for by depositor, or otherwise disposed of.

Cornets and clippings placed in paper box with melt number and assay number, weight and calculated value written upon it are stored in safe with the ingot of which they formed a part and returned with ingot to the depositor.

1st Charge: Assaying and stamping charge, $\frac{1}{2}$ of 1 per cent gross value of the gold and silver contained in the deposit,

2nd Charge: Melting charge, one dollar on each melt,

3rd Charge: Parting and refining charge, 4 cents per ounce on the weight after melting,

4th Charge: Toughening and alloy charge, 2 cents per ounce on 1-11 of the standard weight of the gold.

In paying for silver, deduct from the gross standard weight of the silver 1-99 of the standard weight of the gold. This is to cover loss in converting silver from solutions.

REPORTS.

Weekly reports are received at this office from the manager of the assay office, supplemented by reports from the assayers and chief melter. The report of the manager relates to the details and amount of business done at the assay office, giving date at which deposit was made, receipt number, name of depositor, description of bullion deposited, locality from whence deposit was derived, melt and assay number of ingot corresponding to deposit, gross weight in ounces and decimals, proportion of gold in 1000th contained in deposit, conversion of contained gold in deposit into standard gold, value of gold contained in dollars and cents, proportion of silver contained in deposit in 1000th, conversion of silver contained into standard silver, value of silver contained in dollars and cents, charges on the deposit, (melting, toughening and alloy, refining and parting, fine bars) and finally the net value of the deposit.

Assays are made in duplicate, accompanied by proof assays, the results and weighings are incorporated in the assayers' reports to the manager, copies of which are forwarded to this office weekly.

The chief melter's report furnishes information of the physical character of the bullion deposited, with the weight in ounces, before and after melt, and per cent loss sustained in the melting.

AMOUNT OF BUSINESS DONE IN ASSAY OFFICE.

69,925.67 ounces of bullion, valued at \$1,153,014.50, representing 671 deposits, were received and assayed during the period from July 28, 1901, to June 30, 1902. Tabulation of the deposits, as distributed according to their sources, is appended.

REFUND OF 1% ROYALTY TO MINERS.

To encourage miners to deposit their gold in the Vancouver Assay Office an order by His Excellency the Governor General in Council, dated July 26, 1901, provided 'that when a miner in person produces to the manager of the Assay Office at Vancouver a certificate from the gold commissioner at Dawson that the royalty has been paid on the gold which accompanies the certificate, the manager may issue a refund cheque in favour of the miner for one per cent of the value of the gold when assayed.'

By an order of His Excellency the Governor General in Council, dated September 11, 1901, the same refund was allowed, 'to miners, who in person deposit their gold for assay in the Assay Office of the Provincial Government of British Columbia at Victoria, accompanied by a certificate from the gold commissioner that the royalty

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on the said gold has been paid, the cheque for the refund to be issued by the manager of the Dominion of Canada Assay Office at Vancouver to the miner, or to his order, upon receipt of a certificate from the manager of the Provincial Assay Office at Victoria, giving the net value of the gold assayed,' 'and also the certificate from the gold commissioner of the amount upon which royalty has been paid.'

The amount of refunds allowed in accordance with the provisos of the Orders in Council quoted, were for the Vancouver Assay Office \$4,573.27 and for the Victoria Assay Office \$567.62.

Detailed statements of the transactions in reference to refund are appended.

GOVERNMENT'S INDEBTEDNESS TO THE CANADIAN BANK OF COMMERCE.

An arrangement having been made by the government of Canada with the Canadian Bank of Commerce whereby the deposits of bullion assayed in the Dominion of Canada Assay Office are marketed by the bank, for which it receives a commission of 12 cents per \$100 and is recouped for any loss arising from difference in assayed values, I have the honour to report that the Canadian Bank of Commerce at Vancouver received, in accordance with this arrangement, from the Dominion of Canada Assay Office gold bars and clippings, representing 670 deposits, from July 28, 1901, to June 30, 1902, valued at \$1,151,458.62 and that the bank realized from the sale of these bars and clippings \$1,152,181.73, showing a total difference of \$723.11 between the valuation of the Dominion of Canada Assay Office and the assay office to which the bank sold the bars and clippings.

From the detailed statement appended it will be seen that the total amount of indebtedness to the Canadian Bank of Commerce by the government at the end of the fiscal year, June 30, 1902, amounts to \$658.63.

MANUFACTURE OF PROOF GOLD AND SILVER.

Some of the proof gold required for proof assays and proof silver required for inquartation was obtained through the courtesy of the officers of the United States Mint in Philadelphia and the sub-treasury department in New-York. It was, however, deemed expedient to manufacture our own proof gold and silver during the less busy part of the winter and the assayers were consequently instructed to convert the cornets which had accumulated from the assays and which weighed 28.08 ounces into proof gold and the 62.73 ounces silver residues resulting from the parting operations into proof silver. This proof silver, together with 200.55 ounces of proof silver purchased from the United States mint at Philadelphia, was farther manufactured into parting discs of 50 and 650 milligrams respectively.

A farther clean up of silver residues resulted in the recovery of 18.75 ounces of proof silver, which was manufactured into silver discs.

Detailed reports from the assayers of the results of the operations and statement of receipts of proof gold and silver from the United States, amount manufactured and on hand at the end of the fiscal year, June 30, 1902, are appended.

RECOVERY FROM GRAINS.

In the melting of gold dust with fluxes, small globules of the gold are caught in the viscid slag. These are afterwards recovered by crushing and washing. The crucibles and cupels absorb small quantities of gold and some of it passes by volatilization into the flues. Only the recovery of grains from the slag has so far been attempted at the assay office and has yielded an ingot weighing after melt 59.01 ounces, which was

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deposited in the United States mint at Philadelphia and the proceeds, amounting to \$962.83, were placed by your direction to the credit of the assay office, Vancouver.

RECEIPTS AND EXPENDITURES.

A statement showing money received and expended by the Dominion of Canada Assay Office and also detailed statement of expenses of the assay office, during the fiscal year ending June 30, 1902, are appended.

The percentage of the net expenses to the total deposits is 0.96776%. But even when including in the estimate of expenses for the Vancouver Assay Office the total expenses incurred, which include the purchase value of the plant, the expenses incurred in the establishment of the office, the refunds made to miners and the indebtedness to the Canadian Bank of Commerce for handling our bars, the percentage of this gross expenditure to the deposits is only 2.1315%.

CHANGES AND IMPROVEMENTS IN INTERNAL ARRANGEMENT OF ASSAY OFFICE.

The accommodation of the melting room was found to be insufficient and the noise of the blower located in the room adjoining the melting room proved to be very annoying to the staff in the manager's office, moreover, the acrid fumes arising from the moulds during casting found their way to the manager's office to the great discomfort of the manager. In order to improve this state of affairs, the partition between melting room and office was continued to the front wall, across the space reserved for the public, the partition between melt room and blower room removed and the two rooms thrown into one, thus increasing the area of the melt room for the greater convenience of the melters. The blower and motor were moved upstairs. The furnaces were mounted on iron tables and hoods constructed for same, thus furnishing a system of ventilation conducing greatly to the comfort of the melters. The hoods and tables were permitted, through the courtesy of the officers of the United States Assay Office at Seattle, to be copied from those so successfully in use in their own assay office.

A new building erected to the east of the building in which the assay office is located seriously affected the draft of our chimneys and necessitated their extension by means of iron pipes.

ADDITIONS TO THE EQUIPMENT.

The two gas air blast furnaces, numbers 4½ and 7, which were installed at the beginning, were supplemented with furnaces numbers 1 and 2 to meet the requirement for the more economic melting of the smaller deposits. The melting department was also furnished with a laboratory 2 x 4 roll jaw crusher to facilitate the work of the melters in the recovery of grains from slags.

Two United States mint parting apparatuses of 36 cornets capacity each and a cupel machine were added to the equipment of the assayers' department, the former enabling the assayers to do their work more expeditiously and obtain more uniform results in their parting operations, the latter was used for the manufacture of cupels during the slack season.

An additional assay balance, number 5, was ordered from Henry Troemner, Philadelphia, to replace one which was reported to me as having been damaged. The injured balance was returned to Troemner's for repairs.

With these additions to the equipment and the changes in the interior of the assay office, above specified, the assay office is now in excellent working condition.

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I may here be permitted to state that under the excellent management of Mr. Thomas McCaffry the staff have proven very efficient and their work has been entirely satisfactory.

PLANS FOR VICTORIA MEMORIAL MUSEUM.

According to instructions received from you, sketches of floor plans for the museum were made and sent to Mr. Ewart, chief architect of the Public Works Department.

APPLICATIONS FOR INFORMATION.

Many applications have been received for information relating to the mining operations and industries of the Dominion. In most cases the information was available and could be given. The following is a list of the minerals and mineral products specially inquired for : Mica, pyrites, nickel ores, asbestos, graphite, black iron sands, platinum, felspar, gypsum, zinc and nickel matte.

I have the honour to be, sir,
Your obedient servant,

EUGENE HAANEL,
Superintendent of Mines.

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STATEMENT of Bullion deposited at Dominion of Canada Assay Office, Vancouver, B.C.,
to June 30, classified.

Territory.	No. of Deposits.	Weights.		Value.
		Oz.	dwt.	
Yukon	266	50,578	36	\$24,125 89
British Columbia	366	16,469	55	284,491 12
North-west Territories	12	218	04	3,990 71
Ontario	24	2,597	51	39,388 60
Unclassified	3	62	41	1,128 18
Totals	671	69,925	67	1,153,014 50

STATEMENT of Refunds of 1 per cent made to Miners at Dominion of Canada Assay
Office, Vancouver, B.C.

Date.	Payee.	No. of Refund Cheque.	Amount.
			\$ cts.
1901.			
Sept. 3	Isidore Vidal	1	28 37
" 12	B. H. Svendsen	2	49 87
" 13	Lotta Weismann	3	118 80
" 13	A. Erickson	4	67 34
" 14	A. L. Smith	5	329 25
" 16	Geo. Matthew	6	54 84
" 28	W. Clements	7	12 04
" 28	A. G. McPhee	8	7 17
Oct. 1	Hugo Edwards	9	269 55
" 8	A. McDonald	10	68 34
" 8	Bank of B. N. A., agents for G. Barrack, Barrack & McDonalds & D. Doig	11	699 09
" 9	A. Fasslander	12	465 33
" 14	C. St. G. Yarwood	13	6 44
" 14	M. McConnell	14	90 22
" 14	W. McDonald	14a	51 18
" 14	C. W. Farrar	15	63 56
" 14	T. E. Nelson	16	17 78
" 14	J. Barga	17	22 41
" 15	A. Johnson	18	208 13
" 15	Bank of B. N. A., agents for J. Lynch	19	547 34
" 19	J. Erickson	20	1,234 46
Nov. 7	N. W. Hindle	22	64 79
1902.			
Mar. 8	Addie Butler	24	46 97
	Total		4,573 27

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STATEMENT of Refunds of 1 per cent made to Miners at Province of British Columbia
Assay Office, Victoria, B.C.

Date.	Payee.	No. of Certificate.	No. of Refund Cheque.	Amount.	Total.
				\$ cts.	\$ cts.
Nov. 5	Watson Phillip	1,188		10 90	
" 5	Win. McPherson	719		119 28	
" 5	Henry Miller	858		7 27	
" 5	J. C. Chadwick	1,111		10 50	
" 5	Geo. Adamson	1,084		15 64	
" 5	Geo. Jones	1,284		3 97	
		11,338			
" 5	Geo. Sutherland	11,460		25 50	
		1,250			
" 5	P. H. Gaines	5,193			
		5,194	21	98 78	291 84
Feb. 13	Tagish Jim	828		259 66	
" 13	John V. Cooper	1,392		5 52	
" 13	Eli Cretien	1,426	23	10 60	275 78
Total					567 62

AMOUNT of difference in value of Assays between Vancouver and Seattle from
July 29, 1901, to June 30, 1902, inclusive.

Melt No.	Value of Vancouver Assay.	Value of Seattle Assay.	Value of Clippings pur- chased by Bank.	Total value Assays received by Bank.
From To				
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1-334	792,463 80	791,808 80	1,275 70	793,084 50
335-409	113,073 41	112,946 79	128 09	113,074 88
410-434	15,329 47	15,302 01	37 90	15,339 91
435-477	29,790 80	29,729 96	80 13	29,810 09
478-506	61,824 26	61,824 79	79 31	61,904 10
507-539	15,718 47	15,675 50	47 76	15,723 26
540-509	18,232 32	18,172 66	59 21	18,222 87
570-613	26,596 40	26,495 40	80 13	26,575 53
614-642	39,985 66	39,924 96	77 56	40,002 52
643-670	38,444 03	38,376 40	67 67	38,444 07
	1,151,458 62	1,150,257 27	1,924 46	1,152,181 73

Recapitulation.

Total value assays received by bank \$1,152,181 73
Total value Vancouver assays 1,151,458 62

Balance in favour of Vancouver Assay Office. \$ 723 11

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DOMINION of Canada Assay Office in account with The Canadian Bank of Commerce.

Commission for fiscal year ended June 30, 1902,
on \$1,151,458.62 at 12 cents per \$100... \$1,381 74

LESS.

Gain in assay values... \$ 723 11

Amount due the bank on June 30, 1902... \$ 658 63

DOMINION OF CANADA ASSAY OFFICE,
VANCOUVER, B.C., July 14, 1902.

Dr. EUGENE HAANEL,
Superintendent of Mines,
Ottawa.

SIR,—As requested in your esteemed favour of the 5th instant, I now beg to convey the following information:

Proof Gold received from United States.

	Ounces.
July 29, 1901	50
August 29, 1901	1
September 10, 1901	1
October 14, 1901	3·96
Total	6·46

Proof Silver received from United States.

	Ounces.
July 29, 1901	1
August 2, 1901	6
August 3, 1901	5
September 14, 1901	5
September 23, 1901	2·50
October 2, 1901	5
October 9, 1901	5
October 14, 1901	29·79
January 28, 1902	200·55
Total	259·84

Proof Gold manufactured here and date when received from assayers.

	Ounces.
March 14, 1902	27·55

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Proof Silver manufactured here and date when received from assayers.

	Ounces.
December 31, 1901	57.77
December 31, 1901	4.96
March 14, 1902 . . . . .	.08
May 6, 1902	18.75
Total	81.56

	Ounces.
Amount of Proof Gold on hand, June 30, 1902	26.42
Amount of Proof Silver on hand, June 30, 1902	250.81

Your obedient servant,

THOMAS McCAFFRY,
Manager.

MANUFACTURE OF PROOF GOLD.

DOMINION OF CANADA ASSAY OFFICE,
VANCOUVER, B.C., March 27, 1902.

THOMAS McCAFFRY, Esq.,
Manager.

SIR,—We beg to submit the following as our report of the Proof Gold manufacture:—

	Ounces.
Cornet gold received	28.08 oz.
Silver recovered from filtration	2.3779 grams. * 0.077
Gold recovered from filtration	1.804 " 0.058
Precipitated gold before melt	27.62 oz.
Proof gold after melt	27.45 " 27.45
Gold from slag	0.10 " .10
	27.685
Loss in melt	0.07 "
Total weight gold and silver recovered	27.685
Total loss	0.395
Loss in melt	0.07
Loss in working up	0.325

COST.

2 assayers, 4 days labour; $\frac{1}{2}$ gallon nitric acid c. p.; $\frac{1}{2}$ gallon muriatic acid c. p.; $4\frac{1}{2}$ gallons sulphurous acid	\$9.00
Loss in gold .395 oz. at \$20.67	\$ 8.16

Your obedient servants,

CHARLES S. HURTER,
Chief Assayer.

C. B. FARQUHAR,
Assistant Assayer.

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MANUFACTURE OF SILVER INTO DISCS.

DOMINION OF CANADA ASSAY OFFICE,
VANCOUVER, B.C., March 27, 1902.

THOMAS McCaffery, Esq.,
Manager.

SIR,—We beg to submit the following as our report of the Proof Silver Disc manufacture:—

	Ounces.
Received proof silver strips.	200·55
Received proof silver brick.	57·77
Received proof silver brick.	4·96
Total received.	263·28
Discs 50 milligrams.	52·50
Discs 650 milligrams.	206·95
Scrap remaining.	3·34
	262·79
Loss.	0·49

Your obedient servants,

CHARLES S. HURTER,
Chief Assayer.

C. B. FARQUHAR,
Assistant Assayer.

DOMINION OF CANADA ASSAY OFFICE,
VANCOUVER, B.C., May 6, 1902.

THOMAS McCaffery, Esq.,
Manager.

SIR,—We beg to submit the results of the supplementary clean up of silver residues on April 30, 1902.

	Ounces.
Silver recovered from residues.	18·75
Scrap from previous clean up.	3·34
Total.	22·09
Silver discs manufactured.	19·86
Scrap remaining.	2·14
Total.	22·00
Loss.	0·09

Your obedient servants,

CHARLES S. HURTER,
Chief Assayer.

C. B. FARQUHAR,
Assistant Assayer.

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STATEMENT of Expenditure made by Dominion of Canada Assay Office, Vancouver, B.C., to June 30, 1902.

Alterations and repairs.. . . .	\$ 1,669 77
Acids.. . . .	78 95
Assayers' materials.. . . .	313 54
Assayers' balances.. . . .	894 45
Lock boxes.. . . .	31 00
Crucibles, covers, &c.. . . .	690 14
Castings and metal work.. . . .	477 42
Chemicals.. . . .	215 35
Decorations.. . . .	75 00
Freight and express.. . . .	462 56
Furnaces.. . . .	1,377 70
Gas and fixtures.. . . .	639 63
Electric light, power and fixtures.. . . .	411 03
Hardware.. . . .	109 80
Stationery.. . . .	655 56
Furniture.. . . .	263 30
Cleaning office.. . . .	29 75
Oil.. . . .	1 80
Insurance.. . . .	46 25
Drawing lease.. . . .	5 00
Purchase of proof gold and silver.. . . .	284 72
Machinery and appliances.. . . .	1,977 79
Telegrams.. . . .	169 07
Premium on bond.. . . .	80 00
Gloves.. . . .	36 00
Rent.. . . .	1,200 00
Taxes, water.. . . .	21 58
Postage.. . . .	8 75
Travelling expenses, McCaffry, Thos.. . . .	200 79
Travelling expenses, Hurter, C. S.. . . .	100 35
Travelling expenses, Middleton, G.. . . .	17 00

Salaries—

Thos. McCaffry, July 2, 1901, to June 30, 1902.. . . .	2,493 28
C. S. Hurter, June 20, 1901, to June 30, 1902.. . . .	1,236 66
G. Middleton, July 15, 1901, to June 30, 1902.. . . .	1,154 84
J. B. Farquhar, July 1, 1901, to June 30, 1902.. . . .	1,100 00
D. Robinson, July 18, 1901, to June 30, 1902.. . . .	687 10
Miss Tierney, November 1, 1901, to June 30, 1902.. . . .	470 00
J. O'Sullivan, 9 days in May at \$5 per day.. . . .	45 00
Paid Bank of Commerce, commission on gold.. . . .	658 63

Total.. . . .	\$20,389 56
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STATEMENT showing money received and expended by Dominion of Canada Assay Office, Vancouver, B.C., to June 30, 1902.

To amount of appropriation.. . . .	\$20,000 00
To amount received for grains and sweeps recovered.. . . .	962 83
To amount received for special assays (2).. . . .	2 00
	<hr/>
	\$20,964 83
By amount of expenditure to June 30 per statement.. . . .	20,389 56
	<hr/>
	\$ 575 27

APPENDIX TO THE REPORT OF THE SUPERINTENDENT OF MINES.

REPORT ON COPPER BELT AND COAL LANDS NEAR WHITE HORSE,
Y.T., AND ON THE MINING CONDITIONS OF THE KLONDIKE, Y.T.

DEPARTMENT OF THE INTERIOR,

OTTAWA, December 15, 1902.

To the Hon. CLIFFORD SIFTON,
Minister of the Interior,
Ottawa.

SIR,—I left Ottawa on July 28 last for the Klondike, in accordance with your instructions, to acquaint myself with the present mining conditions of the district.

On my way to Dawson I stopped over for one day at White Horse for the purpose of visiting the copper belt, the nearest point of which is only $1\frac{1}{2}$ miles from White Horse. The copper belt runs parallel to the Lewes river at an average distance of 3 miles from its western bank, has a maximum width of 4 miles, minimum width of about 2 miles, and has been found to be mineralized for a distance of some $8\frac{1}{2}$ miles. The accompanying map, on a scale of one mile to one inch, shows the principal copper locations in the vicinity of White Horse. It has also an inset, showing the position of this mining district with reference to the principal places in the Territory.*

WHITE HORSE.

COPPER.

The mines visited were the Grafters, Best Chance and Copper King, where some development work had been done. A government wagon road is being constructed, leading from White Horse to this mining region, and about one-half the distance to the Grafters mine had been completed on the date of my visit. At the Grafters mine I found that a shaft of 60 feet in depth had been sunk and some drifting begun. The ore, chiefly Bornite and Copper-glance, carries gold and silver values and many of the specimens examined, taken from shaft and drift, showed free gold.

Some development work had also been done on the Best Chance claim, which joins the Grafters, lying north-east of it, by the removal of the ferruginous capping and the sinking of a shaft some 30 feet in depth. The nature of the ore appeared to be similar to that of the Grafters claim.

At the Copper King, some $3\frac{1}{2}$ miles to the north-west of White Horse, also reached by government wagon road, a shaft of some 30 feet had been sunk and drifting begun. The shaft was timbered and on going down, I found the surface to drift covered with ice, preventing examination. The surface of this claim has been prospected for mineral for a distance of 900 feet by some 30 cross cuts, exposing a mineralized zone, about 200 feet in width. Not sufficient development work has yet been done to disclose the amount of ore contained.

*For a description of the geology of the region by Mr. McConnell, see pages 49 A et seq., summary report on the operations of the Geological Survey for the year 1900. This map will only appear with the monograph form of this report.

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Two hundred and ten sacks of picked ore from this mine, representing 8,757 tons net, have been sold through Pellew-Harvey, Bryant & Gilman, of Vancouver, B.C., to the Puget Sound Reduction Company, of which the following is an itemized statement of the transaction :*

Sacks	210
Net weight	pounds 17,870
Moisture	per cent 2
Dry weight	pounds 17,515
Tons, net	8,757
Assay per ton of 2,000 pounds.....	gold, oz. 0.10
Assay per ton of 2,000 pounds.....	silver, oz. 11.00
Assay	copper, per cent 46.64
Total value per ton.....	\$98 15
Cost of treatment per ton.....	6 00

Net price per ton..... \$92 15

Amount.....	\$807 00
Less freight	64 85

\$742 15 = \$84 74 per ton.

From this value per ton must further be deducted to obtain the net value, the cost of mining, sacking and cartage from mine to railroad depot. No figures could be obtained for these items.

Although the examination of the copper belt was hurried, and, therefore, necessarily superficial, still sufficient was seen to impress me favourably regarding the mineral contents of the area. The concentration of the ore into matte and shipment of the same for further treatment to refineries will obviously be the method of commercially handling the output.

COAL.

The following statement, relating to the coal lands of the White Horse Coal Company, was made to me by Mr. Robert Lowe, of White Horse:—

'The White Horse Coal Company's lands consist of a strip ten and one-half miles long, and contain 4,000 acres, situated about eighteen miles west and south-west of the town of White Horse, Yukon Territory. There are on the property, so far as known, ten veins ranging in thickness from four feet to twenty feet and aggregating over one hundred feet in thickness and running along the foot hill a distance of about ten miles, being cut off at the east end by a limestone ridge, and on the west end by the Ibex valley, a broad valley with entirely different formations on either side.

'The coal veins dip into the mountain at an angle of about 45 degrees, and show many exposures where cross-cut by streams from the mountain. They are also cross-cut by two deep valleys where water level tunnels may be run in on the veins, and in short distances obtain depths varying from one thousand to fifteen hundred feet beneath the surface croppings. No easier or cheaper place to develop a mine could possibly be prepared by nature. The company has a tunnel eighty feet in length on one vein, showing it to contain nineteen feet of clear coal, almost entirely free from slate or foreign substances. About seven tons of this coal were taken to the White Pass and Yukon Railway and tested by them in March, 1901. This coal was taken out from a depth of about eighteen feet from the surface in mid-winter, soaked with surface water and immediately frozen on exposure to the air, thus rendering it impossible to pick out any slate, &c., and in that condition tested on the road. Herewith are attached the reports of engineer to J. P. Rogers, superintendent, and now on file in their office.

*Copy of assay return of Pellew-Harvey, Bryant & Gilman, Vancouver, B.C.

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'The coal lands can be connected with the White Pass and Yukon Railway at a point nine miles south of White Horse, by building twelve miles of railroad up a wide level valley, without engineering difficulties whatsoever, and at a cost of about \$10,000 per mile, as estimated by J. E. Beatty, engineer, who surveyed the route, or could be connected directly with White Horse and navigation by the building of about twenty miles of road, thus being entirely independent of the White Pass and Yukon Railway, and at the same time passing directly through the centre of the copper belt.

'*Coal Market.*—At the present time the White Pass and Yukon Railway use ten thousand tons of coal north of White Pass summit, all of which has to be transported over the summit from Skagway and placed in bunkers as follows:—About two thousand tons at Bennett, about two thousand tons at Caribou, and about six thousand tons at White Horse.

'The cost of this coal to the company at Skagway is \$7.85 per ton. In addition to this, the company uses for its fleet of steamers thirty-five thousand cords of wood, at an average cost of \$6.50 per cord. This wood is annually growing scarcer and is a spruce wood, very light and requiring almost three cords to equal one ton of our coal. The company would be glad to substitute our coal for this wood. The town of White Horse burns about five thousand cords of wood per annum at a cost of \$10 per cord in stove lengths.

'The Klondike district and Dawson burnt in 1901 \$3,000,000 worth of wood at prices ranging from \$12.50 to \$18 per cord, according to reports compiled by the wood inspectors and newspaper statisticians of Dawson. The figures for the railroad and steamboats were furnished us by Mr. E. C. Hawkins, Manager of the White Pass and Yukon Railway.

'In addition to this present existing market, the White Horse district will in the next few years develop into a great copper district, with smelters and an almost unlimited market for coal.'

FIRST TEST.

SKAGWAY, ALASKA, April 1, 1901.

Re Test of White Horse Coal.

Engineer A. MCGEE,
Shops.

DEAR SIR,—Referring to the test of coal made out of White Horse last Wednesday, I would be glad to have you answer the questions below.

Q. How much of the White Horse coal did you take out of White Horse ?

A. Forty-five sacks, or about two tons.

Q. Was your fire started with it ?

A. Yes.

Q. How much did you burn between White Horse and Skagway ?

A. Two tons run me 80 miles.

Q. How did it compare with the Comox coal for steaming purposes ?

A. Not as good.

Q. Is the percentage of ash greater or less than the coal we are now using ?

A. Greater.

Q. Did you find any slate in the coal on breaking the same up ?

A. Yes, small amount.

Q. Did the coal clinker up any more than the Comox coal ?

A. It did, but not bad for clinkers.

I would be glad to have you answer the foregoing questions as intelligently and fully as possible.

Yours truly,

(Signed)

J. P. ROGERS,

Div. Supt.

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I was told this coal was taken from a depth of 15 to 20 feet level. Would consider it first class for surface coal. Made very little black smoke.

(Signed) A. McGEE,
Engineer.

SECOND TEST.

SKAGWAY, ALASKA, April 10, 1901.

Re Second Test of White Horse Coal.

Engineer A. McGEE,
Shops.

DEAR SIR,—Referring to the second test of the White Horse coal, made out of White Horse station on the 6th instant, I would be glad to have you answer the questions below.

Q. How much of the White Horse coal did you take out of White Horse ?

A. Thirty-five sacks.

Q. Was your fire started with it ?

A. Yes.

Q. How much did you burn between White Horse and Skagway ?

A. Thirty-five sacks.

Q. How did it compare with the Comox coal for steaming purposes ?

A. Not so good, but makes good steam.

Q. Is the percentage of ash greater or less than the coal we are now using ?

A. Greater.

Q. Did you find any slate in the coal on breaking the same up ?

A. Small amount of slate.

Q. Did the coal clinker up any more than the Comox coal ?

A. Yes.

Yours truly,
(Signed) J. P. ROGERS,
Div. Supt.

(Copy of Analyses furnished by Mr. Lowe.)

ANALYSIS of coal, Sample No. 1, taken from tunnel at a vertical depth of about twenty-five feet from the surface.

Fixed carbon.. . . .	72.90
Vol. car. matter.. . . .	5.55
Ash.. . . .	17.76
Water.. . . .	3.79
	<hr/>
	100.00
Sulphur	0.41

ANALYSIS of coal, Sample No. 2, taken from surface of ground on top of high hill.

Fixed carbon.. . . .	57.97
Vol. car. matter.. . . .	10.18
Ash	26.06
Water.. . . .	5.79
	<hr/>
	100.00
Sulphur	0.69

Both samples anthracite.

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Unfortunately the authority for these analyses is not stated and Dr. Bell, Acting Director of the Geological Survey, has had the kindness to have check assays made for me of specimens collected for me by Mr. Norris. These specimens were taken: the one marked A from top of the mountain, four feet from surface and about $1\frac{1}{2}$ miles from the tunnel; the one marked B was taken from the tunnel, 63 feet from its mouth, 45 feet from surface and 800 feet below the level from which A was obtained.

The results of the assays, by fast coking, reported by Dr. G. C. Hoffmann, are as follows:—

Specimen A.

Hygroscopic water.	3.83
Volatile combustible matter.	15.84
Fixed carbon.	47.81
Ash (light purplish-brown)	32.52
	<hr/>
	100.00

Specimen B.

Hygroscopic water.	1.76
Volatile combustible matter	5.69
Fixed carbon.	68.59
Ash (light reddish-white)	23.96
	<hr/>
	100.00

They are both non-caking.

THE KLONDIKE.

On my arrival at Dawson on August 4, preparation was made to visit the more important creeks to study the methods and mining conditions of the region. A democrat wagon with a span of horses, in charge of a member of the North-west Mounted Police, was for that purpose kindly placed at my disposal by Acting Commissioner Major Wood, and in company with Mr. Beaudette, mining engineer to the department, the following creeks were visited:—Bonanza, Eldorado, Gold Run, Upper and Lower Dominion, Hunker and Last Chance. Quartz and Sulphur creeks were not visited, since nothing new in the way of mining was to be learned by such visit.

The following is the result of my observations along the creeks:—

MINING METHODS.

The methods at present employed in the Klondike in reaching the 'pay-streak,' which underlies the muck and barren gravel of the gold-bearing areas, depend, aside from the requisite supply of water, mainly upon two conditions: The inclination of the ground to be worked, and the depth at which the 'pay' is found.

If the overburden of muck and barren gravel is inconsiderable, the claim is worked by the 'open-cut method.' The pay-gravel is laid bare by the removal of the overburden by 'stripping' the entire area to be worked. If the ground is more or less level, the stripping is effected by the use of scrapers, operated by horses or steam power, steam points for thawing being employed when necessary. If the inclination of the ground permits and the available supply of water is sufficient for the purpose, the overburden is removed by 'ground-sluicing,' i.e., washing away the muck and barren gravel by means of a jet of water under pressure. The pay-gravel is by these methods exposed to the action of the sun, which thaws the gravel, permitting its removal to the sluice-

box by pick, shovel and barrow, or the operation of a steam shovel or 'ground sluicing' into sumps and subsequent elevation by machinery. Illustrations of these methods with particulars will be given later.

Where the overburden is very heavy and the fall of the creek bottom insufficient for ground-sluicing, as at Gold Run, the cost of removal of barren material by above described method is prohibitive and the 'pay-streak' must be reached by shafts and drifts. The breaking down of the frozen gravel in drifting is accomplished either by steam-thawing or ground-sluicing; the latter process being employed where the gravel is coarse and interspersed with large boulders, preventing the entrance to any depth of the steam points, or where steam-thawing would bring down too large a quantity of gravel at a time or result in the premature caving in of the roof or walls of the drift.

If the ground to be worked has sufficient inclination and water of sufficient quantity and under sufficient pressure is available, hydraulicking is the method employed in removing the barren material and extracting the gold from the underlying 'pay-streak.' A powerful stream of water washes away the overburden, disintegrates the barren and paying gravel, which, with the exception of large boulders, is carried by the force of the water along improvised channels into the sluice-box.*

MACHINERY AND APPLIANCES USED IN THE WORKING BY THE OPEN-CUT METHOD.

Steam-shovel plant of Dougherty and Stiles, in operation on Claim 134, below Lower Discovery, on Dominion Creek.

The claim which is being worked by this interesting plant has been stripped by 'ground-sluicing.' The amount of water used for that purpose ranged from 100 to 200 miners' inches. The overburden averaged only 5 feet, the depth of gravel to be worked, 10 feet. The bed-rock had not been reached when I inspected the plant. Very few boulders were encountered, and the gravel was not frozen.

The operations are conducted with two machines; one being the steam-shovel proper, the other the gravel-dressing plant. The steam-shovel is built on the plan of a common dredge, the contents of bucket-shovel being dumped by releasing the catch which holds the swing-bottom in place when being filled, elevated and swung over to be emptied. The release is operated by the engineer operating the shovel. To enable the shovel to tear up the bed-rock, when reached, the lip of the bucket-shovel is armed with three strong prongs of steel. The bucket-shovel is capable of effectively excavating gravel 10 feet below the level of the machine. The bucket-shovel holds about three-fourths of a cubic yard, and the machine has a capacity of 800 cubic yards in two shifts of 10 hours each.

The gravel-dressing machine is composed of a hopper into which the steam-shovel dumps the gravel, which is there attacked by two streams of water under pressure, which disintegrate and wash it into a rotating trommel. The trommel is 40 inches in diameter and perforated with holes of $\frac{5}{8}$ and $\frac{3}{4}$ of an inch in diameter. A spiral ledge, 4 inches high and about 12 inches between spirals, keeps the tailings tumbling long enough to be thoroughly washed by the jets of water which proceed under a head of 27 feet of pressure from a perforated pipe passing through the centre of the trommel. The over-size tailings fall upon a belt conveyor, which can be lengthened, shortened and inclined, as necessity requires, and thus find their way to the dump. The under-size gravel, carrying the gold and the wash-water, passes into a box beneath the trommel, from which it is elevated by a centrifugal pump into the head of a sluice-box, which is connected by gates with two separate sluice-ways, provided with Hungarian

*In both 'ground sluicing' and 'hydraulicking' a jet of water under pressure is the agent employed for disintegrating gravels. The term 'ground sluicing' is used by miners of the region when the gravel loosened and moved by the jet of water requires a second handling to bring it into the sluice box; 'hydraulicking' when the same jet which disintegrates and moves the gravel also forces it into the sluice boxes.

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riffles, one sluice-way being used when the other is being cleaned up, so that no stoppage of operations is required during the time occupied by the clean-up.

The steam-shovel absorbs 10 horse-power and the gravel-dresser 8 horse-power. The plant is said to cost \$20,000 and, with the exception of some castings, which were imported, was designed and constructed in Dawson. The working force consists at present of 20 men, 10 men for each shift of 10 hours. The capacity of the plant is equal to the work of 90 men per shift of 10 hours.

The quality of the ground worked is low grade, and according to the manager's report, carries \$1.50 per cubic yard of pay-gravel, and under the favourable conditions which prevail at this claim, much lower grade gravel could be handled with profit. The cost of operation is reported as 13 cents per cubic yard handled. This low cost is accounted for in part by the exceptional cheapness of the fuel in this special locality. There is plenty of wood near at hand costing \$4 per cord, laid down at the claim.

The plant just described furnishes an excellent illustration of the method to be pursued in working profitably gravel which could be worked only at a loss by the ordinary placer methods. This will be seen from the following figures: 4.5 cubic yards of compact gravel is about the average amount a man can shovel from a dump into a sluice box in a shift of 10 hours, for which he receives \$7.50, the ordinary average wage on the creeks for labour. This is at the rate of \$1.66 per cubic yard, exclusive of the expense for labour in bringing the gravel to the dump at the sluice-box.

A steam-shovel is also in operation on claim No. 2, Eldorado, which is being worked for the second time. The shovel here is used to pick up indiscriminately what was left from the first working, including: tailings, stripping and virgin pillars, and putting this material direct through the sluice-box.

Dredge Operating on 42, below Discovery, on Bonanza Creek.

The following description of this dredge offers nothing specially new in construction, and is given merely to complete the record of machinery used in working by the open-cut method.

The dredge is provided with two endless chains of buckets, 29 buckets for each chain, occupying respectively the front and rear of the structure. The chain of buckets situated at the front or bow performs the function of excavator and hoist, the other that of tailings-stacker. The lips of the buckets of the former are armed with strong prongs of nickel steel, those of the latter are plain. A 75 horse-power boiler furnishes the steam-power, 65 horse-power being required to operate the plant.

The excavating buckets elevate and empty the gravel into a rotating perforated trommel, the axis of which is inclined about 10°. The gravel tumbled by the rotation of the drum is washed by jets of water, which proceed under pressure from a perforated pipe, which passes along the axis of the trommel. The over-size falls into the buckets of the tailings-elevator and the fine gravel, carrying the gold, passes along with the wash-water over tables situated on either side of the trommel. These tables are provided for the purpose of catching the gold with mats, which are overlain by expanded metal, which performs the function of riffles. The gold which is not caught on the mats falls with the tailings into sluice-boxes situated below these tables.

The 'clean-up' is effected every morning. The mats are shaken over a pan placed in a large box, and panned in the usual manner. The fine gold, which cannot be thus recovered, falls into the box, from which it is transferred to amalgamators and run over amalgamated plates. The sluice-boxes are cleaned up in the usual way.

Three men for one shift are required to run the dredge, which handles on an average 700 cubic yards of gravel in a run of 20 hours, which represents the labour of 156 men working with a shovel and pick. The consumption of fuel is 3 1-10th cords of wood per day at a cost of \$12 per cord. The men receive \$5 per day and board.

The depth of water needed to float the dredge is 4 feet. Where the ground is not frozen, the whole depth of the claim is taken up without moving the dredge; where it

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is frozen, the unfrozen top is taken up, down to the frost, the remainder is taken up later, when thawed by the sun.

Open-cut Worked by 'Ground-Sluicing' and Bucket-Elevator.

Claim 17, Eldorado creek, acquired by A. W. Hamberger from J. Hall, is being re-worked by the former by the method of 'ground-sluicing.' The gravel is disintegrated and washed down into a sump by a jet of water from a 2-inch nozzle, under a head of 35 feet. From the sump the gravel is elevated 30 feet and dumped into the sluice-box by means of a bucket-chain elevator. Part of the water used for sluicing is elevated by pump from the sump in which the water from the 'ground-sluicing' collects; 25 horse-power is absorbed by the pump and 12 horse-power by the bucket-conveyor, requiring three cords of wood in 24 hours for steam-making; 15 men are at present employed, which will be reduced to 8 next year, 4 men for each shift of 10 hours. The conveyor does the work of about 62 men as regards the quantity of gravel moved, without taking into consideration the work required in lifting the gravel some 30 feet.

This method of re-working ground on open-cut is very effective; the gravel readily yields to the force of the jet and is with little difficulty washed into the sump.

Centrifugal Pump in open-cut on 29 below Discovery, on Hunker, at the mouth of Gold Bottom.

The sluicing on this claim is done at the bottom of the open-cut. The head of the sluice-box in this case is provided with a grizzly, preventing boulders and large size gravel from passing down into the sluice-way. The over-size is forked out into wheelbarrows and deposited in the worked-out portion of the cut. The fine tailings and sluice-water pass into a sump, into which dips the intake of a centrifugal pump, which forces the fine tailings and water through an iron pipe back into the creek.

METHOD OF SHAFT AND DRIFT.

The improvements made in the machinery required for bringing the pay-gravel from the drifts to the sluice-box on the surface consist in the replacement of the windlass by steam-hoists and the introduction of self-dumpers. These latter labour-saving devices are of special interest in that they represent an invention made in the Klondike and credited to one Bernard Esby. There are now a number of patterns in use, but all operate on the same principle, which consists in running a trolley, carrying a bucket, up an incline wire-rope, tightly stretched between shaft and sluice-box, to the head of the sluice-box, where on account of the tightening of a rope attached to the underside of the lip of the bucket, the bucket is capsized, discharging its contents into the sluice-box. On slackening the hauling rope, the bucket is righted, and the trolley returns by gravity along the wire-rope to the mouth of the shaft. Arrived here, the trolley is locked, the pulley to which bucket is attached is released and descends by gravity to the bottom of the shaft. On hoisting, the tightening of the hauling rope, when bucket has arrived on top of shaft, unlocks the trolley, but locks the pulley holding the load to the car, and the trolley now proceeds, as before described, up the incline to discharge its load automatically at the end of its journey.

The foreman of the McDonald Iron Works Company, Dawson, was kind enough to furnish me with rough sketches of two of the most commonly used patterns. The accompanying drawings, based on these sketches, illustrating the operations of these self-dumpers, and showing the functions of the different parts in the critical positions of the trolley, were made by Mr. William J. Graham, through the courtesy of the geographer, Mr. White.

PATTERN No. 1.

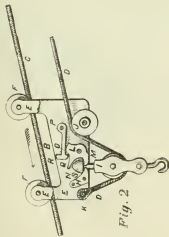


Fig. 2

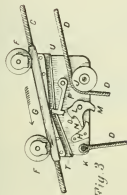


Fig. 3

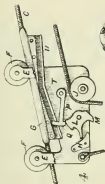


Fig. 4

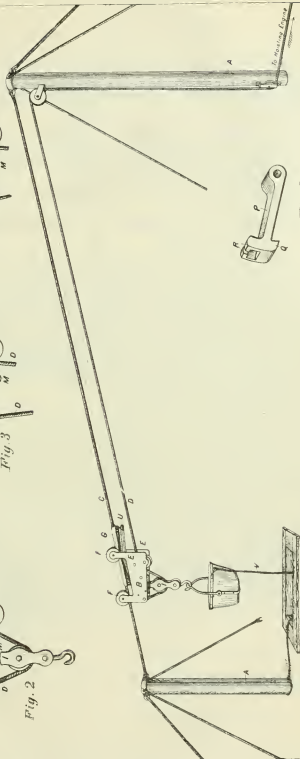


Fig. 1



Fig. 5

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Description of Self-dumper, Pattern No. 1.

Similar letters of reference to indicate similar parts are employed throughout.

Fig. 1 represents a parallel perspective view, showing the general arrangement throughout. The trolley with load in position for its journey along the cable to point of discharge.

Fig. 2 represents an enlarged detail view of trolley-car in side elevation, with outer plate of car removed to show the interior mechanism.

Fig. 3 illustrates the position of interior parts of trolley-car, when in position for releasing the bucket to descend the shaft.

Fig. 4 illustrates the position of interior parts, when locking the trolley, preventing its farther descent.

Fig. 5 represents a detail perspective view of the retaining hook, showing the slot which fits the incline on the cable.

The posts A, strongly guyed, are placed one near the shaft and the other just beyond the point of discharge. The incline of the standing rope C is such that the car will, on slackening the hauling rope D, run by gravity freely from discharge position back to position over shaft and with sufficient momentum to engage the trolley-locking device P U. Q of P is lifted out of recess of cam L (shown engaged in Fig. 2) throwing cam L over from position in Fig. 2 to that in Figs. 3 and 4, allowing head S of pulley-block I to slip from the jaws of cam L and stationary iron piece H. This releases the pulley-block with attached bucket, which is now free to descend. During release, the locking bar P has slid along the incline U from position shown in Fig. 3 to that shown in Fig. 4; Q of locking bar P being now in contact with head of cam L, trolley is prevented from further descent.

On hoisting bucket from shaft, trolley car, being in position shown by Fig. 4, moves up the standing rope until R of lock-bar P, arrives at U and remains locked in this position until head S of pulley-block I, passing into gap between H and L and striking the prolongation N of cam L, throws L over, so that jaw M engages beneath head S, while Q of P locks into recess on cam L (as shown in Fig. 2), permitting R of P to lower sufficiently to allow trolley to slip from incline U in the direction of discharge. In this position pulley-block is locked and trolley with its load, on further hoist, travels along incline to point over sluice-box. Meanwhile dumping rope V is stretched taut, and on further hoist capsizes the bucket, dumping its load. At this instant, observed by the engineer at the hoist, power is shut off and the hoist reversed; the bucket assumes its vertical position and the car follows the slack of hoist rope D to position shown in Fig. 1.

The engineer is signalled from shaft when bucket requires to be hoisted, but his position in the engine-house is such that he observes for himself when power is to be shut off and engine reversed after dumping of load.

This pattern works well with loads up to one ton.

PATTERN No.2.

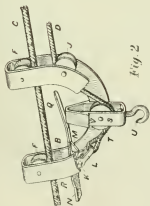


Fig. 2



Fig. 3



Fig. 4



Fig. 1

Description of Self-dumper, Pattern No. 2.

This mechanical device, illustrated by accompanying drawing, is even more ingenious than the one just described, in that the operations are performed by fewer parts and of such simple construction that, with the exception of the pulley and the two rollers of the trolley, the remainder can easily be constructed by any good blacksmith.

As before, similar letters refer to similar parts.

Fig. 1 represents a parallel perspective view, showing the general arrangement throughout, and the bucket in the act or position of either ascent or descent.

Fig. 2 represents an enlarged angular perspective detail view of trolley car on standing rope, with bucket removed and pulley-block in position for carrying the load.

Fig. 3 represents a vertical transverse section of the car near its centre, and showing the limbs of the frame of the car in the spread position in which the bucket is released to descend the shaft.

Fig. 4 represents a detail plan view of the underside of the locking bar at its front end.

The frame of the car B consists primarily of an elliptic or steel outline, which is afterwards, as shown in Figs. 1, 2 and 3, bent with a round turn parallel to the minor axis. The turn is of such width that sufficient space is left between the two semi-elliptic sides to accommodate the rollers F. The roller J, over which the hauling rope is carried, is located beneath the standing rope C; on the opposite side of the frame a pin K serves as a support for clevice L, to which the hauling rope is permanently attached. There is sufficient space between the eyes of clevice L to permit catch M of locking bar N to pass over pin K, engaging the pin K, on slackening hoist rope D, when in position shown by Fig. 2.

The locking bar N consists of a flat iron bar jointed at O to post A, and secured by chain P (as shown in Fig. 1) so as to hang at the proper distance from standing rope C, to permit catch M fully to engage pin K.

Part Q of the bar N is inclined upward. The bar itself widens gradually from its outer extremity to the points R where stops are situated (as shown in Fig. 4) which prevent the trolley car from descending further on the incline of the standing rope C. This widening portion acts as a wedge to spread the car frame, as shown in Fig. 3, and also as a brake to ease the blow on the stops at R.

The pulley-block S, carrying the roller T, consists of an iron frame, wedge-shaped at its upper end, and the lower end furnished with hook for the support of the bucket. The wedge-shaped portion acts as a guide between the limbs of the car-frame and at the same time provides the catch-ledges N, which rest on the upper edges of the lower parts of the limbs of the car, when the frame springs back to its original position, thus supporting firmly the block with its load upon the car.

The capsizing rope, on under side of lip of bucket, is not shown.

Operation: Assume the bucket with its load (see Fig. 1) in position of ascent. On hoisting, the wedge-shaped part of pulley-block S, entering between the limbs of frame of car, strikes the part Q of lock-bar N, which disengages the catch M from pin K, releasing the car B. On further hoist, the car in its onward movement along standing rope C slips gradually from the inclined sides of lock-bar N; the limbs of the frame of car approach each other until the catch-ledges V rest securely upon the upper edges of the lower part of the limbs of the frame. Any further hoist moves the car with its load along the standing rope C to the point of discharge.

On return by gravity, arrived over shaft, upper part of frame of pulley-block S slides along incline Q of lock-bar N, lifting catch M above pin K, at the same time wedge-shaped part of lock-bar N opens limbs of frame of trolley to allow pulley-block, on further slackening, to pass between them and the bucket descends the shaft. As the top of pulley-frame leaves the lock-bar N, the lock-bar descends and catch M engages pin K, locking the car in position over shaft.

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Observations were made regarding the efficiency of self-dumper, pattern No. 1, on discovery claim, lower Dominion creek. By counting the number of buckets raised in a given time it was found that on an average 300 buckets could be raised from the shaft, which in this case was 46 feet in depth, and dumped in sluice-box in a shift of 10 hours, on the supposition that a loaded bucket was always ready at the bottom of the shaft to be exchanged for the empty bucket arriving.

The Need of Testing Ground by Panning when Drifting.

In taking out gravel by drifting, it is necessary, to avoid passing from the 'pay-streak' and mining barren gravel, that the ground be continually tested by panning as the drift advances. Neglect of this precaution leads frequently to disaster. An illustration of the consequence of such disaster, cited by the mining inspector for the Gold Run district, is that of the case of Mr. Denker, who worked on a 'lay' the claim No. 12, below Discovery, on Quartz creek. It is stated that Mr. Denker worked all last winter taking out gravel from the claim, which he supposed to be 'pay.' On sluicing in the spring, it was found that most of his dump consisted of barren gravel. The claim passed into other hands, and by panning and keeping within the 'pay-streak' the present operators found the claim a profitable venture.

A still more telling illustration is given by the mining inspector of the Dominion creek mining district. Mr. Louis Pond, owner of No. 31 Creek Claim *b*, Upper Discovery, on Dominion creek, worked all last winter with three steam plants, employing 21 men, accumulating on the dumps large quantities of gravel. No panning was done during the winter's work. On washing up the gravel in the spring, most of it proved to be barren. The new owners, by careful panning, kept within the 'pay-streak,' and were able by three weeks work to pay the purchase price of the claim, \$2,500.

HYDRAULICKING.

The Coffee Hydraulicking Plant.

The claim worked by this plant is situated on King Solomon Hill, at the mouth of Boulder creek. The water, brought from a point 4 miles above the mouth of Boulder creek, conducted by ditches, flumes and syphon, is delivered at the distributing point on King Solomon Hill under an effective head of 150 feet. The diameter of the nozzle is 3 inches, that of the pipe 10 inches. The gravel is guided by channels into a long sluice-box, provided with block-riffles shod with iron. The tailings are deposited on claim No. 1, Boulder creek. The plant is very effective.

The hydraulic plant of George Johanson has already been described by Dr. Miers, in his 'Visit to the Yukon Gold Fields, August, 1901.' It may be stated, however, that since then Mr. Johanson has put in a new condensing plant to purify the water of the creek for the boilers, and that, according to his statement, he expects his claim to be worked out next year, and that he will then remove his plant to his hydraulic claims on the Big Salmon river.

I learn from Mr. Robertson, Mining Inspector, Grand Forks, Y.T., that Andrews & Company have secured Cheechako Hill, with the object of converting it into an hydraulic proposition, and that Mr. Andrews has secured the necessary pumping machinery. During the present season, Mr. P. H. Hebb, owner of a large block of claims on the Hill, has been working these claims by the method of 'ground-sluicing,' and has, up to September 1, uncovered about 50,000 square feet of bed-rock, yielding upward of \$50,000.

'To do this work Mr. Hebb employed on an average 10 men for all work, 2 men being required for the actual work of 'ground-sluicing.' The amount of water used was, when at its best, about 50 miners' inches, 30 miners' inches being the usual amount, which is very little more than half a sluice-head, while for a considerable time this water was being used for the second time, it having been used to sluice dumps on the hill at a higher level.

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The water used was pumped from Bonanza creek by a Worthington pump, driven by an 80 horse-power boiler, at a cost of about \$60 per day, requiring about 4 cords of wood for 24 hours.'

A large hydraulic plant arrived at Dawson, on September 5, for Cecile Cole, to be used for pump-hydraulic on Last Chance creek.

The time is rapidly approaching when efforts will be made to work by hydraulic methods the benches and hillsides in the Bonanza mining division. To enable operators to carry out such purpose, the requisite dumping ground will require to be provided. At present it is the practice of owners of worked out or worthless creek ground to hold their properties at such high figures as effectively to prevent the hillside operator from acquiring such ground for dumping purposes. It seems in the best interests of the region that bona fide hydraulic operators be protected from the 'hold up' which is being practised in this matter by owners of worked out claims. The grant for placer mining issued by the Department of the Interior expressly provides that 'the said grant shall lapse and be forfeited unless the claim is continuously and in good faith worked by the "owner" or his associates.' Insistence on the carrying out of these conditions expressed by the terms 'continuously and in good faith' will release many of these claims and render them available for the much needed dumping ground.

ROCKERS.

Very few examples of the primitive method of rocking out the gravel remain to be seen in the region. The few observed were on claims Nos. 9 and 10, on No. 7 Pup, a tributary of Victoria gulch. On No. 9 four men were at work, two men employed pick, shovel and barrow, supplying the two rockers with pay-dirt. The men claimed to be making an average of \$10 per day per man. On No. 10 only two men were at work, and their average earnings were about \$7.50 per day.

But for the scarcity of water, the proper method of working this steeply inclined gully would be by hydraulic.

PUDDLING MACHINES.

On a bench claim, which I examined, on Last Chance creek, the pay-gravel, which is found only a few feet below the surface, is distributed through a very tenacious clay, which prevents the recovery of the gold by the ordinary method of sluicing, and requires to be disintegrated before being run into the sluice-box. For this purpose the gravel, which is trammed down the hillside to the creek, is dumped into what is called by its operator a puddling machine. This machine consists of two concentric wooden cylinders, about $3\frac{1}{2}$ feet high and of respective radii 2 and 6 feet. The space between the cylinders is floored and the interior cylinder filled with earth, tightly rammed about an upright post, occupying its centre. This post carries a strong iron pin which fits into a hole of a wooden beam, about $3\frac{1}{2}$ inches in diameter. This hole divides the beam into the respective lengths of 4 and 8 feet. At a distance of 4 feet from the centre on each side the disintegrator is attached. This consists of a triangular frame of wood, into which stout iron pins are driven, after the manner of a common harrow. These pins rest upon the floor-space and to prevent the tilting of the disintegrator, as it is moved along in its circular path by a horse hitched to the longest part of the beam, it is loaded with boulders. The operation is as follows:—The pay-gravel is dumped into the circular space between the cylinders, water is added and the disintegrator dragged through it by the horse hitched to the longest end of the beam. One charge, consisting of perhaps 4 cubic yards, requires 8 hours puddling before it is sufficiently disintegrated to be allowed to pass into the sluice box, which is connected with the puddling machine by a gate in the outer cylinder. A second machine of a similar character was in process of construction at the time of my visit.

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I could not learn from the workmen how much gold this clayey gravel carries per cubic yard, but it must evidently be quite rich to pay working it by such a crude and primitive machine.

THE CLEANING OF AURIFEROUS BLACK SAND.

Where pay-gravel contains much black sand, the separation of the gold from the black sand is, on account of the high specific gravity of the latter, not completed in the sluice-box. This sand is usually saved and sold to persons who make it a business by special methods to effect the separation at a profit. Mr. Napoleon Huot, on No. 35, below Upper Discovery, Dominion creek, cleans his own black sand, of which great quantities collect in his sluice-boxes.

His method consists in using mercury to amalgamate the gold. This mercury is retained by high transverse riffles, two for each length of sluice-box, the entire sluice-box comprising nine lengths. The water carries the black sand above the high riffles, the gold is retained by the mercury. This separation is not complete. Specimens of the black sand, cleaned by this process, were found on assay still to contain 0.47 oz. per ton, valued at \$9.71.

The tin-stone, which occurs in large quantity on this claim, was found to be auriferous. The specimens collected assayed 0.01 oz. gold per ton, valued at \$0.21.

CHARACTER OF THE GOLD.

During my visit to the various claims, I have taken every opportunity which presented itself to examine the gold won at these claims. I was impressed with one characteristic which was common to nearly all the gold examined, viz.: the shape of the grains. The grains were flat, roughly elliptical plates, more or less smooth on both surfaces. This shape would not result from travel of the gold along with the gravel down the creek-beds, but rather from the pressing and polishing action of the gravel, as it passed over the gold, flattening out the grains and elongating them in the direction of the passage of the gravel over them.*

*See also Mr. McConnell, Summary Report of the Geological Survey Department for the year 1901, page 26.

THE ELDORADO
PAY STREAK.
FALSE BEDROCK.

FROM THE
RIGHT LIMIT.

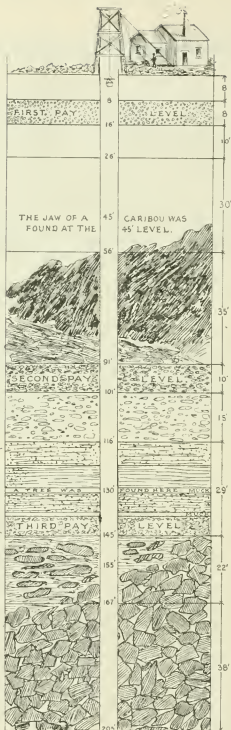
FROM THE
LEFT LIMIT.

GOLD BEARING.

PRACTICALLY
BARREN.

RIVER
SEDIMENTS.

LAIN
HORIZONTALLY.
A WASH BOULDER
AT 155'



LOOKING DOWN ELDORADO

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215 Foot Shaft on No. 3 A, Eldorado Creek.

In 1901, upon the right limit of No. 3 Eldorado 'pay' was struck below what had been considered the bed-rock. Mr. Asa Thurston Heydon, M.E., in the *Dawson Daily News*, of August 11, makes the following statement in connection with this interesting discovery. 'This "pay,"' he writes, 'was of a local character, and its continuation was struck upon No. 3 A The next step forward was taken by Messrs. Thompson, White and Granger, who, acting upon Mr White's knowledge that there was still muck below the deeper "pay," purchased No. 3 A and commenced searching for the deepest "pay." After purchasing, they drifted 30 feet towards the creek, from the bottom of the shaft through what appeared to be a point of solid bed-rock, and found a mixture of worked-over silt and gravel containing good "pay." As this mixture descended a little draw or sag in the run at an angle of about 30 degrees, it was followed a distance of 90 feet, which gave a total of 80 feet from the surface. By that time the gold had left the bed-rock and worked up into the slide. As the combination of shaft and incline made the hoisting both inconvenient and expensive, the old workings were abandoned, after incurring an expense of \$6,000, and the present, known as the deep shaft, was begun last February.

'After passing through the eight feet of muck, the regular Eldorado "pay" streak, 8 feet in thickness, was struck. This was the first "pay" level encountered and rested upon 10 feet of slide or false bed-rock, formed of a clayey decomposed schist. This was underlaid by a 30-foot deposit of muck, silt and sand. Beneath this was a heavy slide from the right limit, resting upon another from the left. These slides aggregate 35 feet in thickness. Underneath there was a 10-foot layer of mixed slide, gravel and sediment, containing good "pay." This formed the second "pay" level. As the gold differed from the creek gold, and was almost identical with the beautiful French Hill gold, the belief that the missing bench gold had broken down into the deep channel was still farther confirmed. Incidentally this is undoubtedly the same layer that was followed down by the incline.

'The next layer, 15 feet in thickness, is composed of river-worn slide, unmingled with gravel and sediment. The fact that it is barren at that point does not militate against its being valuable elsewhere. This was followed by 29 feet of river gravels and sediments, containing the layers of muck, one of which held a tree some 12 inches in diameter. These gravels and sediments, aside from a slight and natural variation in colour, are identical with those upon the benches, and afford farther proof of the correctness of the deep channel theory. The lowest stratum of these river gravels forms the third "pay" level and, although low grade at that point, would in all probability develop into a "pay" proposition by cross-cutting it.

'The third "pay" level rests upon a mushed up mass of broken slide and sediment with an occasional wash boulder, all laid horizontally until it gradually merges into what appears to be a talus or broken slide, such as gathers at the base of a bluff or steep declivity.

'The boulders of this slide are embedded in ground rock and lie upon each other in all shapes, while there are frequently open spaces between them of considerable size. This mass had been penetrated to a distance of 60 feet by the shaft, which has reached a depth of 205 feet. From the indications uncovered, it would hardly seem as though it could be more than 50 feet to solid bed-rock, but there are absolutely no data upon which to base an estimate, consequently the only thing to do is to keep sinking until something definite one way or the other is discovered. It is also quite likely that the solid formation would be struck upon the rim or side, which would necessitate some drifting in order to reach and test the deep channel.'

The description just given is substantially the one given me by Mr. Thompson on my visit to the shaft, who informed me also that since the publication of the description of the shaft by Mr. Heydon, they had added 10 feet to the depth, so that the shaft, when I left, was 215 feet down. They were still in broken sericite schist. The sinking

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of the shaft. Mr. Thompson stated, was undertaken in the hope that on reaching the true bed-rock, they would strike a rich 'pay-streak,' which would justify the outlay on what has proved so far a costly venture.

I found the shaft timbered all the way down and was not, therefore, able to check the section of the shaft, as published by Mr. Heydon, and which is here reproduced.

INDIAN RIVER CONGLOMERATE.

It had been my intention to visit and examine the conglomerate deposits on the Indian river, but I was informed by Mr. Beaudette that no development of any consequence had been made, and that not much could be learned by mere inspection. He further reports that two tons of this conglomerate were put through the stamp mill of the Ladue Company, at Dawson, with the result of a yield of \$2.24 per ton. The ore was taken from a drift driven into the conglomerate deposit to a distance of 15 feet.

A fire assay was also made by the assayer of the Ladue Company, giving a result of \$2.27 per ton, which corroborates the mill run, and shows that in milling practically all the gold was saved.

The opinion was expressed that the gold is distributed through the cement, and is not carried by the quartz pebbles. This appears to be substantiated by the fact that, on panning the cement, colours were obtained.

QUARTZ.

Great activity has been manifested by prospectors in searching for auriferous quartz and many quartz claims have in consequence been staked.

I visited what were represented to me at the time as some of the more important of these quartz claims, where some development was reported to have been made. Specimens were collected and assays of these made at the Dominion of Canada assay office, Vancouver, B.C.; results of the assays of these specimens are given at the end of description of each locality from which the specimens were obtained. The gold values are calculated at the rate of \$20.67 per Troy ounce.

Lone Star and New Bonanza Mineral Claim.

This claim is situated on top of Victoria Hill, which constitutes the divide between Bonanza and Eldorado creek. It was reached by way of Victoria gulch and trail leading up to the top of the hill. The development work consisted of a shaft 4 feet square, 38 feet deep, at the bottom of which a tunnel, 50 feet in length, had been constructed. The quartz here occurs in the form of stringers, which are separated from each other by thin layers of sericite schist. These stringers differ in width from the thickness of a knife blade to several inches, swelling out into lenticular masses, which again become constricted, only to widen out again. They are enveloped by sericite schist, abundantly mineralized with iron pyrites and galena. What is regarded as the foot wall is quartzite, the hanging wall, sericite schist. Free gold occurs in all the specimens examined on the contact surface between the quartz and mica schist. At a distance of about 28 feet from the shaft another shaft had been sunk, but this was filled with water at the time of my visit. A number of cross-cuts had been made on the surface, in each of which quartz showed abundantly. Masses of quartz were seen protruding from the surface all about the locality where the shaft was sunk, and it needed only to wet the surface of the quartz with water to reveal the bright specks of gold adhering to their surface. These quartz blocks seemed to have been weathered out from the country rock, and evidently occupied their original position.

On leaving the mines, we passed down towards Gay gulch to the road along Eldorado creek. On our way down we met with many cross-cuts, which had been made

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wherever there seemed to be an indication of quartz. About two-thirds of the way down the hill a pit, 4 x 8 feet, had been blasted out of the quartz to a depth of about 3 feet. There is no doubt regarding the abundance of quartz indications, but in what condition and in what quantity it was impossible to determine.

Gay gulch and Victoria gulch, the former a tributary of Eldorado creek, the latter of Bonanza creek, limit Victoria Hill toward the sources of Bonanza and Eldorado creeks. Above Victoria and Gay gulches, Bonanza and Eldorado creeks respectively are unproductive, below these gulches the creeks are rich. It seems a reasonable conclusion that the gold in these creeks, at least as far as they flank the sides of Victoria Hill, was derived from Victoria Hill.*

The following are the results of assays made from the Lone Star mineral claim. The specimens were taken from the shaft above described:—

Specimen No. 1.—

Thin pieces of quartz stringer coated with sericite schist.

Gold per ton, 0.51 oz.; value, \$10.54.

Specimen No. 2.—

Quartz from interior of thick piece of stringer, free from sericite schist.

Gold per ton, 0.12 oz.; value, \$2.48.

These assays, while corroborating the observation that the gold chiefly occurs at the contact surface, between the sericite schist and the quartz, furnish no indication of the average tenor of the quartz, since the distribution of the gold is very irregular.

On the Divide which separates the left Fork of Hunker from the left Fork of Dominion Creek.

On top of this divide occurs an exposure of quartz, 51 feet in length, with a maximum width of 17 feet. A shaft, 12 feet in depth and 8 x 4 feet cross-section, was sunk, the whole being in quartz. The quartz is milky, tinged with oxide of iron and free from spangles, or thin layers of sericite schist, which is the rock in which the outcrop occurs. At a distance of 310 feet to the west of this outcrop occurs another, 20 feet 9 inches in length, and rising above ground to a distance of 6½ feet. Large masses of quartz appear all over the hillside, which seem to lie in their original positions, having been weathered out from their matrix of mica schist. The creeks, left fork of Hunker and left fork of Dominion, which skirt the hill, are barren.

A specimen taken from shaft assayed 0.02 oz. Gold per ton valued \$0.41.

On Gold Run, opposite 33 Creek Claim, left Limit.

An attempt has been made to drift into the side of the hill. The tunnel was securely locked, work and tools had been abandoned, and it was impossible to learn anything definite regarding the distance to which the tunnel had been driven, nor of the character of the deposit. From the dump outside it could be seen that the quartz was highly mineralized, being liberally peppered with iron-pyrites. A specimen taken from the dump gave the following results:—

Gold per ton, 0.02 oz.; value, \$0.41.

Quartz Claim, opposite No. 73, below Discovery, on Hunker Creek.

Sixty feet above the road a tunnel has been driven into the side of the hill, following what appears to be a true fissure vein to a distance of 250 feet. The vein passes

*Regarding Victoria Hill as the source of some of the gold in Bonanza creek, Mr. McConnell makes the following statement: 'That some of it came from this point seems beyond question,' page 36, Summary Report, Geological Survey Department for the year 1901.

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through graphitic schist in a direction of 95° W. of north, according to observations taken by Mr. Beaudette.

Specimens for assay were taken at distances of 100, 200 and 250 feet from mouth of tunnel and also from dump. The following are results of assays:—

No. 1. 100 feet from mouth of tunnel—Gold, 0·05 oz. per ton; value, \$1.03.

No. 2. 200 feet from mouth of tunnel—Gold, 0·01 oz. per ton; value, \$0.21.

No. 3. 250 feet from mouth of tunnel—Gold, 0·03 oz. per ton; value, \$0.62.

No. 4. 250 feet from mouth of tunnel—Gold, 0·02 oz. per ton; value, \$0.41.

The following specimens were taken from dump:—

No. 5. Gold, trace.

No. 6. Gold, 0·03 oz. per ton; value, \$0.62.

No. 7. Gold, 0·03 oz. per ton; value, \$0.62.

The Ladue Quartz Property on Lepine Creek.

This property is situated some 15 miles north-east of Dawson, and is reached by trail. The width of the exposure of quartzite is 296 feet, the dip 45° south and strike N.W. An extensive talus reaches from the outcrop down the declivity of the hill to Lepine creek. The face of the outcrop shows the rock in a very shattered condition. Specimens for assay were taken from different parts of the outcrop. The results of these assays are as follows:—

No. 1. Greenish-gray quartzite, containing minute crystals of iron-pyrites, No. 2 lower tunnel Tupper—Gold, trace.

No. 2. Weathered iron-stained quartzite, No. 1 high tunnel Tupper—Gold, trace.

No. 3. Weathered quartz, iron-stained from talus—Gold, trace.

No. 4. Greenish-gray quartzite, containing iron-pyrites, slightly iron-stained, No. 3 right hand tunnel Tupper—Gold, 0·15 oz. per ton; value, \$3.10.

The Ladue Company contemplate removing their four-stamp mill from Dawson to this property, with the expectation of adding to the number of stamps, if the quartz prove profitable. There is plenty of good wood in the immediate vicinity of the property for fuel, and coal within three miles, which has the following composition, determined by Dr. Hoffmann, through the courtesy of Dr. Bell, Acting Director, Geological Survey:—

Hygroscopic water	14·38
Volatile combustible matter	34·26
Fixed carbon	42·80
Ash	8·56
	<hr/>
	100·00

Coke non-coherent.

There is sufficient water in Lepine creek to furnish 700 horse-power, if dam be constructed to give a fall of 6 feet.

From the assays of the specimens quoted, taken from what were regarded as the most promising of the quartz locations, it will be seen that quartz of sufficient richness and in paying quantities remains yet to be discovered in this region. The comparatively high assay value of some of the specimens taken from the Lone Star mine, on Victoria Hill, is no indication whatever that much of the quartz will carry similar high values. In fact the assay of the quartz from the interior of the stringers shows that the average tenor may be comparatively low.

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FUEL.

The fuel at present employed in firing the boilers is wood, which varies in price according to locality from \$12 to \$17 a cord. But little wood is left in the vicinity of the creeks which are being worked, and it is becoming necessary to go further and further afield for the supply, which increases the cost by the additional amount of teaming required. The wood, which is spruce, with here and there a little birch, is cut green, loosely piled and set on fire, which burns off the branches, carbonizes the bark and partly dries out the wood. In this condition it is delivered in 16-foot lengths.

Owners of claims requiring a heavy outlay for fuel to operate their machinery are looking forward with interest to the experiment being made by the N. C. Company, of Dawson. This company is equipping all its river boats with apparatus for using coal oil under the boilers, and is erecting four storage tanks along the route from St. Michael to Dawson. These tanks are to be constructed of 3-inch wood of a capacity of 5,000 barrels. To distribute the oil for storage in these tanks the company will employ two tenders carrying metal tanks. The oil to be used will be brought by tank-steamers direct from the California oil fields to St. Michael.

I understand from Mr. Phillips, Manager of the N. C. Company at Dawson, that the change from the present method of heating with wood to that of coal oil is easily effected and at comparatively small expense, and that the saving in time of transit and firing costs in one year is expected to be sufficient to cover the entire expense incurred in making the change.

The superiority of coal oil as a fuel over the best coal and wood is easily understood when it is recollected that 1 pound of coal oil on perfect combustion is equal in heating effect to 27,000 B.T.U.,* one pound of the best Welsh anthracite is equal to 14,858 B.T.U.** and one pound of dry wood to only 5,943 B.T.U. Hence, coal oil is, as a heat producer, about twice as effective as anthracite coal, and four and a half times as effective as wood.

It appears that coal oil, if introduced as a fuel, will meet the needs of the miner in that region. Its transportation along the government roads in iron tanks presents no difficulty, and claim-owners in adopting oil as fuel save the extra labour involved in handling solid fuel and in stoking.

FUTURE OF THE KLONDIKE.

The first workings of the claims of Bonanza and Eldorado creeks by the cruder methods of earlier years have been so wasteful that it has been found to pay to work them a second time, and some claims have yielded, on second working, larger returns than on first working. Many of these claims are now worked out 'from end to end and rim to rim, and are fit for nothing else than dumping ground.' No claims on the other creeks, as far as I could ascertain, are being worked a second time, nor is it likely that it would prove profitable to re-work them, since the methods of extracting the gold have greatly improved, and care is exercised to get out maximum percentage of the 'pay.'

It must not, however, be overlooked that there are long stretches of creek bottom and gulches, which, being of too low a grade to be worked by ordinary placer-methods, can be worked profitably on a large scale by machinery. Many claims, which are 'good pay,' are held back for lack of water, awaiting the exhaustion and relinquishment of adjoining claims to enable the owners to take advantage of the water now being used by their neighbour. Still other claims are held back, awaiting improved conditions as regards transportation, labour and fuel. To this ground now lying idle must be added the hillsides awaiting to be worked by hydraulicking.

*Page 368 E. Tremlett Carter, C. E., motive power and gearing for Electrical machinery.

**l. c. Table IV., page 54.

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But whatever generous estimate may be made as regards the quantity of gravel still to be worked in the Klondike, this gravel will be worked on a large scale by the more rapid methods of machinery, employing comparatively few men. It is quite probable that other auriferous regions may be discovered in the Yukon, which will develop into placer-mining camps,—we know very little as yet of the resources of the Yukon,—but such discoveries will simply shift the population to the new mining camp. That this is realized, and that it is understood that the Klondike as a mining camp must look for permanency to the discovery of paying quartz and in paying quantities is evidenced by the energy manifested by prospectors in searching for quartz. Very many quartz locations have already been staked and recorded.

QUARTZ MILL.

On my return from the creeks, I received a communication from the Acting Commissioner, Major Z. T. Wood, asking my opinion regarding the proposed establishment of a quartz mill in Dawson, to which I replied:—

Dawson, September 2, 1902.

SIR,—I beg to acknowledge receipt of your letter of the 19th ultimo in reference to the proposal of the 'Dawson City Water and Power Company, Limited,' to erect an experimental quartz mill for the purpose of making mill runs of auriferous quartz of owners of quartz claims and prospectors, charging certain fees per ton put through the mill, if the government will assist the enterprise by giving a bonus for three years of \$5,000 per annum, and asking my opinion as to the advisability of the government entertaining such a project.

In response to this request I have the honour to state that the development of the Yukon district and its permanence will largely depend upon the finding of a sufficient quantity of auriferous quartz of a degree of richness which will render it feasible under existing high prices to erect stamp mills and work such quartz at a profit. It is, therefore, of prime importance that owners of quartz claims and prospectors shall have the opportunity at not too great expense of testing their properties by obtaining reliable returns from actual mill runs made under proper supervision. Such authentic mill returns will decide the feasibility of working the various claims, encouraging the erection of plants in case the percentage of gold per ton is found sufficient to guarantee a profit, and in the reverse case, prevent the useless expenditure of capital and render improper speculation difficult.

In view of these facts I strongly recommend that the proposal of the 'Dawson City Water and Power Company, Limited,' be entertained, and the bonus, which is reasonably low, be given. The scale of charges is fair, considering the cost of operating the mill, and this will be the more apparent from the prices quoted by the Ladue Company, which I inclose herewith.

I may state in addition that the Australian government has set a precedent of governmental aid to quartz mining by establishing a number of mills, at their own expense, in different localities in their territory.

I have the honour to be, sir,

Your obedient servant,

(Signed) EUGENE HAANEL

Superintendent of Mines.

Major Z. T. Wood,
Acting Commissioner,
Yukon Territory.

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An agreement was entered into by the government with the Dawson City Water and Power Company for the erection of a quartz mill, which, according to contract, was to be in operation by November 15, 1902. In order that the mill-runs might be corroborated by fire assays, it was stipulated that a properly equipped assay office was to be provided in connection with the mill by the Dawson City Water and Power Company, the mill and assay office to be under the supervision of a thoroughly competent government officer. I was asked by Mr. Smart, Deputy Minister of the Interior, to find a competent man for this position, and was fortunate enough to find such a man in the person of Gustave Eugene Beraud, formerly assayer and stamp mill operator of the Ladue Company. Mr. Beraud has attended for one year the Ecole des Mines, of Paris, and has been in charge for two years of the assay office of the Anaconda Copper Mining Company. I have been informed by Mr. Smart that Mr. Beraud has been appointed as assistant to Mr. Beaudette at a salary of \$3,000 per annum, his duties to commence on October 1, 1902.

By telegram of November 19, Mr. Matheson advised me that the mill was ready for operations, and requested that a balance be sent him for the assay office established in connection with the mill.

In response to this request an assay balance, which could be spared from the Dominion of Canada Assay Office, was forwarded by express from Vancouver to the address of Mr. Matheson, in care of Mr. Beaudette, and a set of weights ordered from Trömmner, of Philadelphia, to be sent to the same address.

GEOLOGICAL WORK IN THE KLONDIKE.

Mr. McConnell informs me regarding this subject that a portion of the two seasons, 1899, 1900, were spent by him in the Klondike, and interim reports on the condition of the camp published in the publications of the survey. The work was hampered by the want of a topographical map, and a considerable proportion of the limited time at his disposal was occupied in topographical work. 'A fairly good map,' he states, 'is now available, and it is highly desirable both from an economic and scientific standpoint that a full season at least should be devoted to detailed work in this important district. The work would embrace as its chief points the geological mapping of the region, and, in connection with this, a study of the relationship, if any, existing between any of the various rock groups and the placer gold, the classification of the various gravels, their distribution and approximate values, and an examination of the quartz occurrences in the district, with reference to the possibility of lode mining. The water question and fuel supply would also come within the scope of the work. It is evident that the knowledge gained in a detailed study of the Klondike gold fields would probably apply in large measure to other camps, which may be discovered in the future, and would be of great value in framing rules for their proper working.'

ASSAY OFFICE.

Representations have repeatedly been made to the department of the desirability of establishing a federal government assay office in Dawson to insure the miners the full value of the gold sold for export. It was claimed that, under present circumstances, the banks, to which the miners were obliged to sell their gold, charged too high a percentage in handling their gold. Regarding the justice of such claim, I have made the following observations:—

The two banks established in Dawson, the Canadian Bank of Commerce and the Bank of British North America, to which the bullion is sold by the miners, no longer purchase it, as formerly, at an average price per ounce of dust, but on weight after melt and after the fineness of the bullion has been established by assay, allowing the miner full value for the gold and silver contained in his bullion. The two banks have

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each an assay office, which I was permitted to inspect. I found them fairly well equipped and the assayers thoroughly competent to perform their work with accuracy. This latter fact is evidenced by the agreement shown between the assays of the bank and the assays for the same bars made by the Seattle assay office, to which the bars were sold. I was accorded the privilege by Mr. Cameron, of the Canadian Bank of Commerce, to make this comparison and found that in many cases the assay returns of the bank were in favour of the miner.

The banks charge 2 per cent for handling the miners' gold. Of this amount $1\frac{1}{2}$ per cent (information obtained from express agent, Dawson, Y.T.) is absorbed by marine insurance, consular invoice and express charges to Seattle, the remaining $\frac{1}{2}$ per cent represents the commission which the bank exacts to cover assaying and office expenses, and the loss of interest on money paid to the seller of the gold for the time elapsing between payment to the miner by the bank and receipt by the bank of payment by Seattle assay office, to which the gold is shipped.

Whatever may have been the practice of the banks in previous years, it is quite evident that the miner is at present accorded by the banks very fair treatment, and that the claim repeatedly made that the banks charge too high a percentage in handling the miners' gold is not now justified by the facts.

Under these circumstances, it does not appear that the removal of the Dominion of Canada Assay Office from Vancouver, the central position in reference to the gold fields of the west, to Dawson, or the establishment of an additional government assay office in Dawson would be justified.

MANUFACTURE OF MACHINERY.

The present freight rates on raw material prevent the manufacture of machinery to any extent in Dawson, the freight on raw material being the same as for finished machinery. Coke landed at Dawson is worth \$180 per ton, and the cost of producing plain castings, exclusive of pattern, is eighteen cents per pound. Wages in machine shops and foundry run from \$1 to \$1.25 per hour. Yet in spite of these disadvantages, the MacDonald Iron Works Company turn out about 22 tons annually of castings of all grades of iron, brass and bronze. The actual consumption of castings is about 500 tons annually, and these are supplied principally by firms in the United States.

It may be interesting to mention here that the high benches along the Klondike river furnish an excellent moulding sand, of a reddish-yellow colour, fine grained, yet very open, allowing the gases produced in the moulds to escape very freely. It has a silky feel and the peculiar and valuable property of not burning fast to the iron castings. It is not necessary with this sand to finish the moulds with plumbago, or any other preparation to loosen the sand from the castings, which require but very little tumbling to free them from the particles of sand clinging mechanically to the surface.

I have the honour to be, sir,
Your obedient servant,

EUGENE HAANEL,
Superintendent of Mines.

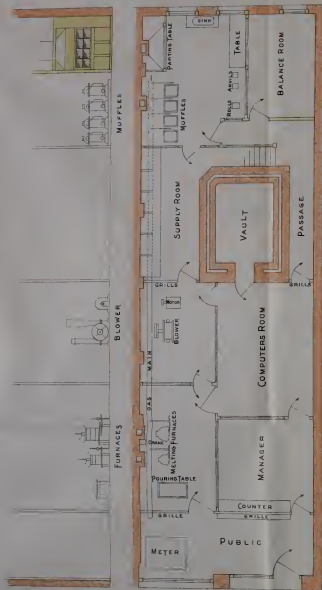
Domino As Bridges



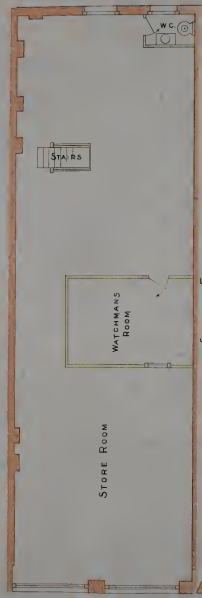
Dominion Assay Office

BRITISH COLUMBIA

SCALE 1/8 IN. = 1 FT.



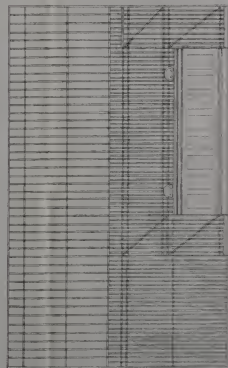
FIRST FLOOR



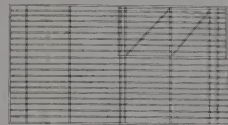
SECOND FLOOR



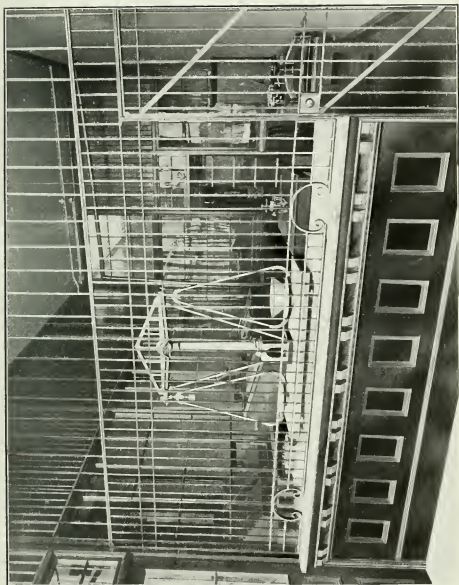
SECTION SHOWING PARTITIONS



FRONT GRILLE

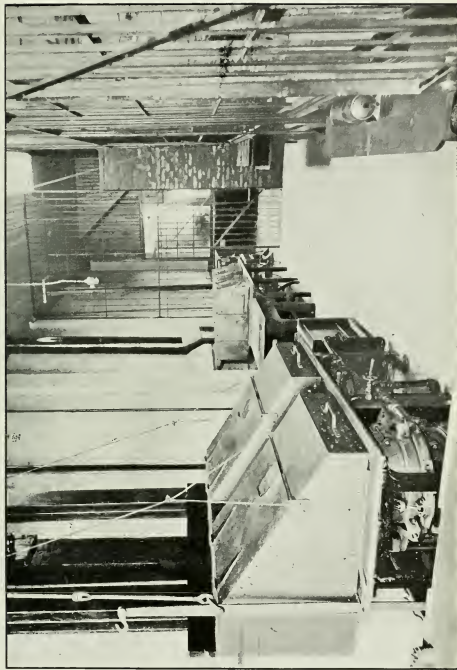


REAR GRILLE



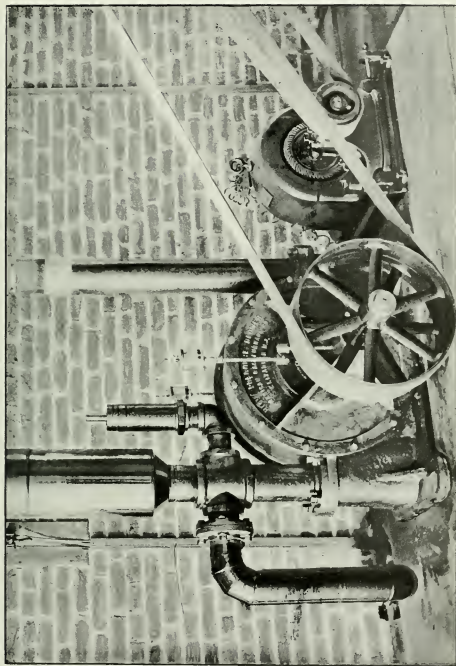
RECEIVING OFFICE.

[Photo by Thompson, Vancouver.



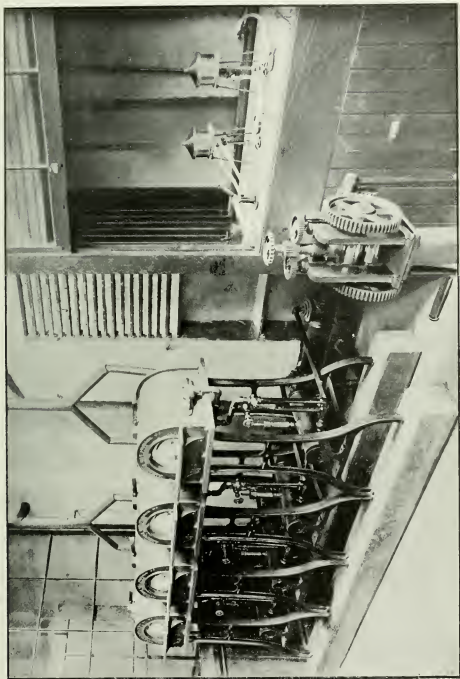
MELT ROOM.

(Photo by Thompson, Vancouver)



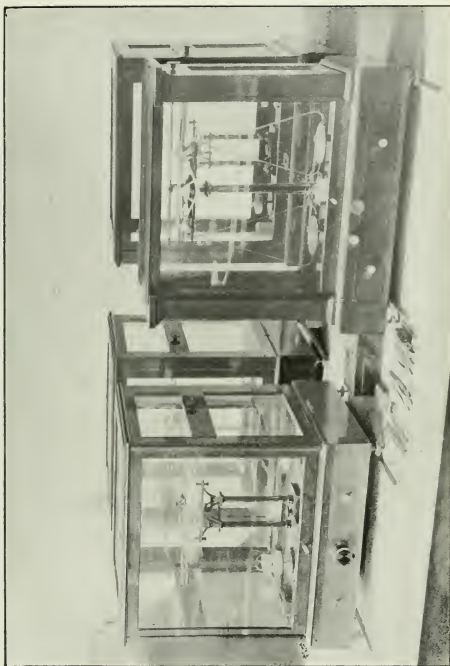
MOTOR AND BLOWER.

Photo by Thompson, Vancouver.



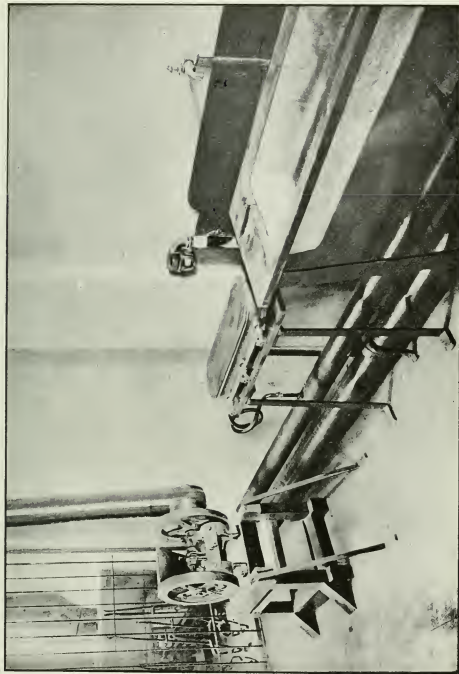
ASSAYING ROOM.

[Photo by Thompson, Vancouver.



BALANCE ROOM.

[Photo by Thompson, Vancouver.



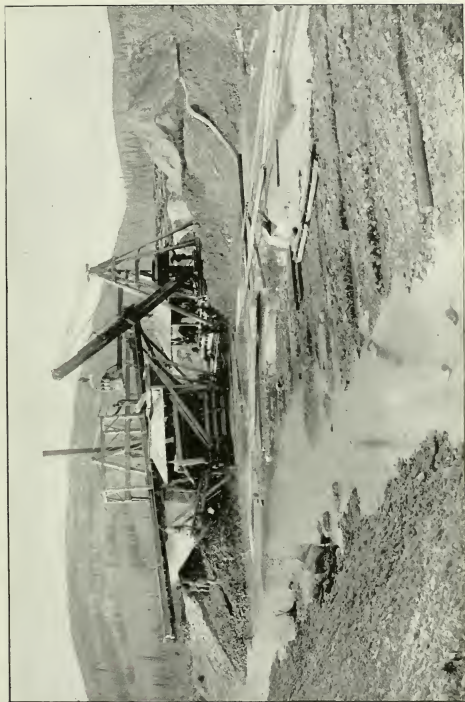
CRUSHER, DRYING FURNACE, WASHING TANK.

[Photo by Thompson, Vancouver.



STORE ROOM.

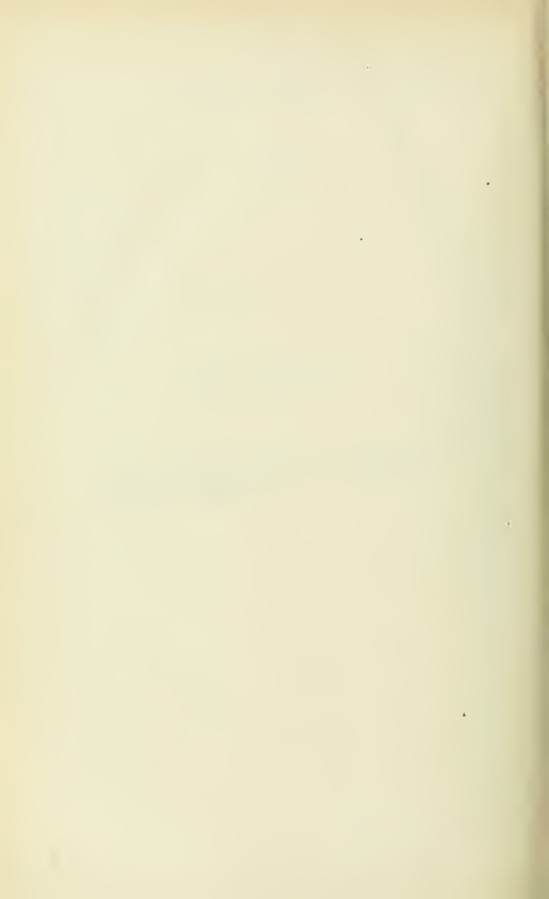
[Photo by Thompson, Vancouver.



STEAM SHOVEL PLANT OF DOUGHERTY AND STILES, IN OPERATION ON CLAIM 134, BELOW LOWER DISCOVERY, ON DOMINION CREEK.

PART VII

YUKON TERRITORY



YUKON TERRITORY.

REPORT OF THE COMMISSIONER.

DAWSON, Y.T., June 30, 1902.

TO the Honourable CLIFFORD SIFTON,
Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the annual report of the Yukon Territory for the year ending June 30, 1902.

The progress of the territory during the last year has been of a very satisfactory character, showing in an unmistakable manner the permanency of this country as a mining district, which will for many years add materially to the resources of Canada.

Gold mining is still, and will always be, the chief industry of the territory, but the conditions of mining are rapidly changing from a speculative to a permanent business character. Increased means of transportation and the opening of the country by means of roads—one hundred and forty-three and a half miles of which are now in existence—have so reduced the cost of mining that low grade ground which in the early years of this country was not considered of any value, is being worked at a profit, and as a result prospectors are spreading over the territory, and large tracts of country have been added to the producing area of the Yukon. For a short time the production of gold may decrease, but this will be succeeded by a period of greater development, until the production of the country is placed upon a permanent basis: the Yukon will then cease to be an ephemeral placer mining camp, and become a steady producer of minerals. The reason for the above statement is that the methods of mining are changing. Experiment has shown that by the introduction of improved machinery great savings can be made in the working of claims, and large owners are investing heavily in plants which will revolutionize the mining industry of this country. Instead of the pick and shovel being the chief implement of labour, we now have the steam shovel and the dredge, which can handle vast amounts of dirt at an expense far below the old methods, rendering of immense value large tracts of country which before could not be worked at all. It will take considerable time before this change can be generally introduced, and many rich claims will remain practically unworked until the owners can introduce these improved methods. From the energy which has always been displayed by the miners of this territory, the above mentioned change will be brought about far more rapidly than one would imagine, and in another year many expensive plants will be at work, which will add largely to the production of gold in the territory.

Great development has also taken place in quartz mining during the past year, but it is still too soon to say whether the vast deposits of quartz and conglomerate can be worked at a profit. Many miners, however, are sanguine that this will be the case, and have shown their faith in quartz by making investments and developing their property to a not inconsiderable extent. It is therefore hoped that the greatest success will crown their efforts, as quartz mining in the future must add much to the district. There is no question but that there are vast deposits of gold-bearing quartz scattered throughout this territory, and much greater development may be expected in this class of mining in the future.

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Hydraulic mining too, has a great future before it, but the initial expense of bringing water to the great beds of gold-bearing gravel being very large, it will take some time before it is in general operation. The work done by small plants throughout the territory has shown beyond a shadow of a doubt that hydraulic mining can be successfully and profitably operated here, and the constant sunlight of the summer months gives a period for operations as long as exists in any other country.

In other lines the development of mining is also progressing. The deposits of copper ore at White Horse are showing up most favourably, and also at White River, where native copper has been discovered, but in neither case has there been sufficient development to test the value of these deposits.

Coal mines too, have been found at several places, giving a very material and necessary increase to the fuel products of the country. Two of these mines are on the Yukon River, one at Five Fingers and the other at Forty Mile, both of which are easily accessible from Dawson, and convenient for the steamers plying on the river. Two other mines have been discovered in the mining district, one at Rock Creek, near the conglomerate deposits, and the other at Eureka Creek, both conveniently situated for furnishing power for mining purposes.

The people of this territory are gradually acquiring self-government. Since my last annual report Dawson has become an incorporated city, and is now governed by a mayor and six aldermen, and the Yukon Council has been relieved from the government of what is perhaps one of the most progressive cities of Canada. Dawson is now a city containing numbers of comfortable homes, with stores carrying stocks of goods that can only be equalled by those of the larger cities of Canada; with churches, hospitals and schools, and all other requirements of a permanent city. Its fire department and water service are excellent, and with its improved streets and sidewalks, it has already reached a stage of advancement which many larger places in Eastern Canada have not yet attained. Grand Forks has also been incorporated under the name of Bonanza, and it is governed by an overseer under the Unincorporated Towns Ordinance. This together with the increase in the number of the elected members of the Yukon Council, will give a degree of self-government which should tend greatly to the progress and advancement of this territory.

The Yukon territory has been comparatively free from crime during the past year, and where crimes have been committed, the criminal has been so expeditiously captured and promptly punished, that law and order have prevailed, and life and property been made as safe as in the older cities of the east. For this admirable state of affairs too much credit cannot be given to the North-west Mounted Police. Their duties in this country are legion, and have all been performed with such promptness and intelligence, that the name of the Yukon has been made unique in the history of mining camps.

Our educational system meets all the requirements of the country. Good schools have been established at all parts of the territory requiring the same, and they are taken advantage of by the people in a manner that shows their appreciation of what the government has done in this particular. They have, up to the present time, been entirely supported by grants from the government, but it is my intention to introduce an ordinance into the Yukon Council at an early date which will place some of the burdens of the educational system in the centres of population upon the shoulders of the people, and at the same time transfer to them the management of the schools. In the more sparsely-settled parts of the territory where the population is of a floating character, it will be necessary for the government to still maintain the management and pay the running expenses of the schools.

The civil service of the territory is being carried on in a satisfactory manner. The new Administration Building at Dawson makes it possible to give prompt and efficient service, and as the work of government is systematized, it may be possible to reduce the staff, but not to any material degree.

The improvements that will be undertaken next year will be largely confined to building roads connecting the creeks upon which mining is being carried on, with the

SESSIONAL PAPER No. 25

city of Dawson, which is the centre of supply for the whole country. About seventy-seven miles of road will be built for this purpose, which, by reducing the cost of transport, will make it possible to work at a profit a considerable quantity of ground which now must necessarily remain undeveloped on account of the expense of transporting machinery and provisions. A winter road two hundred and thirty-six miles in length, connecting Dawson with White Horse, will also be built, giving means of access to this district at all seasons of the year, and doing away with the annoying delays which have heretofore occurred during the time the rivers were freezing in the fall and the break-up in the spring. By shortening the distance it will also lessen the cost of transport during the winter months, and shorten the time it has formerly taken to reach Dawson during that season of the year, and will also open up to the prospector a hitherto undeveloped country.

Before closing this report I would like to point out the possibilities there are in this country for the merchants and manufacturers of Canada to increase their trade. There are, probably, more goods consumed here than in any other community of the same size. These goods must all be of the best quality and those of a perishable character packed in such a way that they will keep for a considerable time. A large quantity of machinery is also needed, and it should be supplied by our own manufacturers instead of being imported from abroad, as it largely is at the present time. The facilities for doing business here are equal to those of any other part of Canada, and it would be found to be of a satisfactory nature, being largely on a cash basis.

I have the honour to be, sir,

Your obedient servant,

J. H. ROSS,

Commissioner.

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REPORT OF THE DIRECTOR OF SURVEYS.

No. 1.

SURVEY OFFICE,

DAWSON, Y.T., July 9, 1902.

HON. JAMES H. ROSS,
Commissioner,
Dawson, Yukon Territory.

SIR,—I have the honour to submit the annual report of this office for the year ending June 30, 1902, as follows:—

During the past year three surveyors have been employed on the staff.

Mr. James Gibbon, D.L.S., was engaged during the last summer season on the survey of claims purchased at public auction from the government on Hunker and Last Chance Creeks and on their tributaries. On these creeks he completed the survey of 106 claims and in addition established $27\frac{1}{2}$ miles of new base lines on tributaries of these creeks. On March 13th of this year Mr. Gibbon commenced a traverse survey of the Klondike River from Dawson to Flat Creek, 44 miles, and returned to Dawson on April 26th, having in addition established base lines on All Gold Creek (14 miles) and on the Left Fork of Hunker Creek (3 miles).

Mr. C. W. MacPherson, D.L.S., was engaged last summer on the survey of auction claims on Bonanza and Gold Run Creeks and their tributaries. On Bonanza Creek he completed the surveys of 59 claims and on Gold Run Creek of 33 claims; on tributaries of Bonanza Creek he also established new base lines amounting in all to $16\frac{1}{2}$ miles.

On March 18th of this year he left for Montana and Eureka Creeks and returned to Dawson May 13th, having established $46\frac{1}{2}$ miles of base lines on Montana Creek and tributaries and 3 miles of base lines on tributaries of Enreka Creek and having also surveyed 36 auction claims on the latter creek.

Mr. A. J. McPherson, D.L.S., made a survey in July last to define the limits of the Dawson and Klondike townsites and upon its completion joined Mr. C. W. MacPherson in surveys on Bonanza Creek and subsequently completed the surveys of 44 auction claims on Eldorado Creek and established $8\frac{1}{2}$ miles of new base lines on this creek and its tributaries. He also made a survey defining the limits of the public road on Eldorado Creek from its junction with Bonanza Creek to Chief Gulch, $5\frac{1}{2}$ miles. On March 10th last Mr. McPherson commenced a traverse survey of the Yukon River from Dawson to Thistle Creek (82 miles) and returned here June 3rd, having in addition to the river traverse established 20 miles of new base lines on Thistle and Blueberry Creeks and surveyed 46 claims purchased at public auction on these creeks.

In connection with the surveys of auction claims on Bonanza and Eldorado Creeks it was found necessary to re-establish the base lines on these creeks as owing to the development work which had been done since the survey of these creeks by Wm. Ogilvie, D.L.S., in 1897 the original definition of these base lines on the ground had become almost obliterated. Of this work, Mr. C. W. MacPherson re-established the base line from Discovery to 60 below on Bonanza, and Mr. A. J. McPherson from Discovery to 44 above on the same creek and also the base line on Eldorado Creek. To summarize, the principal work of the surveyors on the staff here during the past twelve months has included the survey of 324 claims bought from the government at public auction, 126 miles of river traverse, 139 miles of new base lines, $5\frac{1}{2}$ miles of road and the re-establishment of the Bonanza and Eldorado Creek base lines.

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In addition to the surveyors on the staff there are at present eleven surveyors engaged in private practice in this territory whose work is dealt with through this office.

I would again draw your attention to the urgent need of a manual of survey regulations specially providing for the requirements of this country to which I referred in my last annual report.

The returns of surveys, other than those by surveyors on the government staff, which have passed through this office during the last twelve months have included group lots, 104, including 34 mineral claims (quartz); hydraulic concessions, 6; placer claims (for advertisement under Section 46), 463.

I have the honour to be, sir,

Your obedient servant,

C. C. CHATAWAY,
Director of Surveys, Y.T.

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No. 2.

REPORT OF THE GOLD COMMISSIONER.

DAWSON, Y.T., July 5, 1902.

The Hon. J. H. Ross,
Commissioner, Dawson.

SIR,—I beg to inclose herewith annual financial statement in duplicate for the year ending June 30, 1902.

The total receipts are \$624,507.02. The total receipts for the previous year were \$1,075,038.30. The reduction in this year's receipts is due to two items, namely, royalty and sale of Crown claims. \$350,430.88 more royalty was collected during the previous year, and \$86,991.50 was received from the sale of Crown claims. Less these items, the total receipts in the general work in connection with the several offices are only \$13,308.40 less than last year. This amount is also reduced by \$3,124.25, the Gold Commissioner's court fees. These fees are made out in a separate statement this year, owing to the change made in the regulations on May 1, 1901.

The difference in the amount of royalty collected is largely accounted for by the fact that on May 1st last the system of collection was changed, whereby the royalty does not pass through this office. This means that almost the whole amount shown in this year's receipts from royalty, was collected on the output between July 1 and November 1 last, as the royalty collected on the output as a result of the work done during the winter months is not (with the exception of a very small amount) collected until after May 1.

The receipts from the offices outside of the Dawson mining district have increased considerably during the last year. It is evident that there is a general increase in the interest taken in the outlying districts; also that the industry is spreading throughout the territory.

The new quarters will reduce considerably the expense of carrying on the work of the office, as owing to the facilities for working quickly, a considerable reduction can be made in the number of men required on the staff.

I beg to also inclose statement of fees in the Gold Commissioner's Court in duplicate.

I have the honour to be, sir,
Your obedient servant,

E. C. SENKLER.
Gold Commissioner.

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STATEMENT showing the total amount of fees received in the office of the Clerk of the Gold Commissioner's Court, Dawson, during the year commencing July 1, 1901, and ending June 30, 1902.

Protests.	\$ 993 75
Defences.	35 00
Searches.	5 00
Notices of motion.	47 00
Orders.	298 00
Subpoenas.	142 00
Taxations of costs.	160 00
Judgments.	1,005 00
Notices of appeal.	63 00
Filings.	172 00
Withdrawals of protests.	88 00
Appointments.	41 50
Executions.	74 00
Total.	\$3,124 25

Certified correct,

JOHN H. WALKER,

Clerk, Gold Commissioner's Court.

FINANCIAL STATEMENT of the Gold Commissioner's Office for the fiscal year ending June 30, 1902.

Dawson—

CREDITS.

Free miners' certificates.	\$ 63,385 00
Placer grants—Placer.	41,100 00
Renewals—Placer.	65,130 00
Relocations—Placer.	32,310 00
Bills of sale—Placer.	8,782 50
Registered documents—Placer.	10,089 50
Certificates of partnership—Placer.	832 00
Certificates of work—Placer.	9,470 00
Lieu of assessment—Placer.	17,250 00
Water right grants—Placer.	380 00
Abstracts—Placer.	1,413 50
Amended applications—Placer.	90 00
Quartz grants—Quartz.	5,215 00
Registered documents—Quartz.	1,498 50
Certificate of partnership—Quartz.	140 00
Certificate of work—Quartz.	1,180 00
Lieu of assessment—Quartz.	3,100 00
Crown grants—Quartz.	244 43
Hydraulics.	4,611 73
Government auction sale.	9 00
Government reserve fractions.	95 25
Proceeds of Leonard claim sale.	102 87
Court fees.	3,075 00
Advance deposit account.	6,573 75
Forfeited fees account.	6,811 50
Royalty.	24,176 29

\$307,067 82

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Dominion—

Free miners' certificates.. . . .	\$ 8,580 00	
Inspection of work performed.. . . .	0 00	
Royalty.. . . .	25,748 35	
	<hr/>	\$ 34,328 35

Hunker—

Free miners' certificates.. . . .	\$ 5,954 00	
Royalty.. . . .	26,420 80	
	<hr/>	\$ 32,374 80

Sulphur—

Free miners' certificates.. . . .	\$ 2,180 00	
Inspection of work performed.. . . .	20 00	
Royalty.. . . .	7,726 73	
	<hr/>	\$ 9,926 73

Grand Forks—

Free miners' certificates.. . . .	\$ 16,776 00	
Inspection of work performed.. . . .	215 00	
Royalty.. . . .	131,087 03	
	<hr/>	\$ 148,078 03

Gold Run—

Free miners' certificates.. . . .	\$ 5,752 00	
Inspection of work performed.. . . .	5 00	
Royalty.. . . .	25,809 42	
	<hr/>	\$ 31,566 42

Stewart—

Free miners' certificates.. . . .	\$ 2,970 00	
Placer grants—Placer.. . . .	9,045 00	
Renewals—Placer.. . . .	3,435 00	
Relocations—Placer.. . . .	5,190 00	
Bills of sale—Placer.. . . .	280 00	
Registered documents—Placer.. . . .	492 00	
Certificate of partnership—Placer.. . . .	16 00	
Certificate of work—Placer.. . . .	284 00	
Lieu of assessment—Placer.. . . .	200 00	
Quartz grants—Quartz.. . . .	55 00	
Registered documents—Quartz.. . . .	7 50	
Certificate of partnership—Quartz.. . . .	2 50	
Certificate of work—Quartz.. . . .	40 00	
	<hr/>	\$ 22,017 00

Forty Mile—

Free miners' certificates.. . . .	\$ 1,262 50	
Placer grants—Placer.. . . .	1,170 00	
Renewals—Placer.. . . .	1,215 00	
Relocations—Placer.. . . .	1,230 00	
Bills of sale—Placer.. . . .	186 00	
Registered documents—Placer.. . . .	82 50	
Certificates of partnership—Placer.. . . .	30 00	
Certificates of work—Placer.. . . .	192 00	
Water right grants—Placer.. . . .	2 50	
Lieu of assessment—Placer.. . . .	400 00	
Quartz grants—Quartz.. . . .	35 00	
Registered documents—Quartz.. . . .	10 00	
Certificate of work—Quartz.. . . .	2 50	
Royalty.. . . .	599 00	
	<hr/>	\$ 6,417 00

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Clear Creek—

Free miners' certificates.	\$ 783 00
Placer grants—Placer.	8,670 00
Renewals—Placer.	3,945 00
Relocations—Placer.	1,080 00
Bills of sale—Placer.	578 00
Registered documents—Placer.	87 00
Certificates of work—Placer.	228 00
Water right grants—Placer.	5 00
Abstracts—Placer.	3 50
Quartz grants—Quartz.	45 00

Selkirk—

Free miners' certificates.	\$ 625 00
Placer grants—Placer.	45 00
Registered documents—Placer.	7 50
Quartz grants—Quartz.	80 00
Certificate of partnership—Quartz.	2 50

White Horse—

Free miners' certificates.	\$ 3,069 00
Placer grants—Placer.	45 00
Bills of sale—Placer.	175 00
Quartz grants—Quartz.	420 00
Registered documents—Quartz.	45 75
Certificate of partnership—Quartz.	12 50
Certificates of work—Quartz.	850 00
Royalty.	342 00

Hootalinqua—

Free miners' certificates.	\$ 1,495 00
Placer grants—Placer.	3,105 00
Renewals—Placer.	1,995 00
Relocations—Placer.	75 00
Bills of sale—Placer.	260 00
Registered documents—Placer.	90 50
Certificates of partnership—Placer.	44 00
Certificates of work—Placer.	302 00
Quartz grants—Quartz.	40 00
Lieu of assessment—Quartz.	400 00

Dalton Trail—

Free miners' certificates.	\$ 1,330 00
Placer grants—Placer.	2,150 00
Bills of sale—Placer.	44 00

Eureka—

Royalty.	\$ 276 62
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\$ 15,424 50

\$ 760 00

\$ 4,959 25

\$ 7,806 50

\$ 3,504 00

\$ 276 62

\$624,507 02

DEBITS.

Receiver General.	\$621,023 02
Misappropriated funds.	3,289 00
Fees paid in Ottawa.	195 00

\$624,507 02

Certified correct,

WM. LAMB.

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No. 3.

REPORT OF THE CROWN TIMBER AND LAND AGENT.

Dawson, Y.T., July 11, 1902.

Hon. J. H. Ross,
Commissioner,
Dawson.

SIR,—In pursuance with your request, I have the honour to send you herewith a statement in duplicate showing the amount of money received at this office during the twelve months ending the 30th of June last, embodying therewith the receipts of the sub-agencies of White Horse, Fort Selkirk, Stewart and Forty Mile during the twelve months ending the 31st of May last.

The receipts of the Crown Timber Branch, which comprise the revenue from bonuses for timber berths, royalty on operations on timber berths, Crown dues on permits to cut house logs and cord wood, seizure dues on cord wood and timber cut without authority, Crown dues on hay permits and on hay and grazing lands, amounted during the said period to \$44,772.74.

The revenue of the Dominion Lands Branch, which comprises the revenue received during the said period, from the sale of Dominion lands, coal lands, and town lots; the revenue from the lease of Dominion lands, and water-front privileges; from survey fees paid with applications to lease or purchase Dominion lands, from the sale of maps of survey, from registration fees of assignments in unpatented Dominion lands, amounted to \$63,882.72.

These figures, compared with the revenue during the previous twelve months, show a decrease of \$33,407.98 in the Crown Timber Branch, and an increase of \$451.07 in the Dominion Lands Branch.

The amounts received for bonuses on timber berths, and for royalty on operations on timber berths, as shown in the statement attached, are only \$325 and \$547.43, respectively, smaller than the amounts shown in my statement attached to my report of July 16, 1901, for the corresponding previous twelve months; but the receipts under the headings of timber permit dues, seizure dues, and hay permit dues, show the following respective decreases, viz.:

Timber permit dues	\$24,862 27
Seizure dues	4,886 36
Hay permit dues	1,628 92

With respect to timber permit dues, the decrease is specially for the months of July, August, September and October, November and December, 1901, compared with the corresponding months of 1900. The quantity of wood permits during the period from July 1, 1900, to December 31, 1900, and of wood cut under the authority of same, during the summer of 1900 and the winter of 1900 and 1901, for the use of the steamers plying on the Yukon between Dawson and White Horse, and for use in Dawson, *was considerably in excess of the quantity required*. The consequence was that during the summer of 1901 considerably less permits were taken and less excess wood was reported.

With respect to the decrease in seizure dues, this is explained by the fact that there has been less wood cutting without authority, along the Yukon river, for steamboat and Dawson market, compared with the corresponding months of 1900, and further, that the reports made by the different saw-mills, of their operations show less cutting of logs in trespass.

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The decrease shown in the revenue from hay permits is due to the fact that the price of hay from the outside has been so low during the season of 1901 and 1902, that there is no money in cutting the native hay, for sale.

The sub-agencies and the head office at Dawson have contributed in the following proportions, viz.:

1. *Dawson Agency*:—

Crown Timber	\$37,191 31
Dominion Lands	57,340 38

2. *White Horse*:—

Crown Timber	2,870 05
Dominion Lands	6,143 75

3. *Fort Selkirk*:—

Crown Timber	3,329 38
Dominion Lands	398 59

4. *Stewart*:—

Crown Timber	582 50
Dominion Lands	00

5. *Forty Mile*:—

Crown Timber	799 50
Dominion Lands	00

Total

\$108,655 46

PERMITS ISSUED FOR TIMBER.

	No.	Cords.	Feet of House Logs.
Dawson	215	13,771	20,865
Fort Selkirk	46	4,485	3,130
Forty Mile	13	1,315	
Stewart	9	630	
White Horse	35	2,965	6,065
Total	318	23,166	30,050

HAY PERMITS ISSUED.

		Tons.
Dawson	72	429
White Horse	7	32
Selkirk	13	89
Forty Mile	3	16½
Stewart	3	20½
Total	98	587

TIMBER AND WOOD BERTHS.

During the period covered by the said statement attached, three wood berths of one square mile each were granted, and the bonus of \$250 was paid in each case. In one of these cases the berth was subsequently transferred and the bonus paid applied on permit \$2,147. for 490 cords of wood.

Fifteen timber berths were granted, seven of which were for one square mile each, and the others, for five miles each.

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The total operations of the five saw-mills operating in Dawson during the last twelve months is shown as per summary:—

	On hand July 1, 1901.	Manufactured, June 30, 1902	Sold, July 7, 1901, to June 30, 1902.	On hand June 30, 1902
	Feet.	Feet.	Feet.	Feet.
Canadian Yukon Lumber Co.,	175,290	1,522,578	1,511,572	186,286
Jos. Ladue Gold Mining and Developing Co.,	165,845	1,323,436	908,986	580,205
Ruth Howard.,		247,640	199,032	48,608
Klondyke Mill Co.,	261,997	2,662,053	2,120,815	803,235
Yukon Sawmill Co.,	293,812	2,180,798	2,124,885	348,725
Total	896,944	7,936,505	6,865,290	1,968,139

An area of 12,600 acres of coal lands is at present under applications which have been approved. In the case of three locations of 320 acres each, a payment of \$10 per acre, being the first half of the purchase price was made prior to July 1, 1901; this payment should have been made prior to July 1, 1902; the question of the balance of the payment on the said land is at present the subject of correspondence between the department and this office.

In the case of one location of 320 acres and of two locations of eighty acres, in each case one quarter of the purchase price was paid prior to July 1, 1901, and the second instalment of one-fourth of the purchase price became due during the twelve months prior to the 1st instant, but has not yet been paid.

A large proportion of the locations under application and granted as aforesaid, will no doubt be paid for, at least partly, during the present fiscal year, and I anticipate a substantial increase in the revenue from the sale of Dominion lands, during the same period.

Although the receipts from the Crown Timber Branch have decreased as stated, the work in the office, especially the work of correspondence with the Department of the Interior has considerably increased. During the last twelve months the letter register of the office shows that 2,400 letters and applications were received, most of which called for correspondence with you and for an answer.

Your obedient servant,

F. X. GOSSELIN.

Crown Timber and Land Agent.

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CROWN TIMBER AND LAND OFFICE, YUKON TERRITORY.

RECEIPTS for Hay and Timber from July 1, 1901, to June 30, 1902.

Months.	Bonus.	Royalty.	Timber Permits.	Seizures.	Hay Permits.	Grazing Fees.	Inspectors' Expenses.	Total.	Remarks.
1901.									
July	1,000 00	426 92	2,227 65	467 83	992 50			5,114 90	
August	500 00	3,578 36	1,294 25	1,238 37	401 50			7,012 48	
September		3,224 01	2,068 70	637 00	172 50	91 95		6,134 16	
October		500 36	1,097 00	179 75	75 50			1,942 61	
November		212 91	2,199 00	172 00	38 00			2,621 91	
December	250 00	322 25	1,846 50	1,294 18				3,712 93	
1902.									
January		145 63	135 00	26 50				307 13	Dawson Agency, \$37,191 31
February	750 00	188 11	271 10	260 00				1,469 21	White Horse " 2,870 05
March		998 23	817 50	813 30				2,629 03	Selkirk " 3,329 38
April	675 00	326 62	637 17	1,965 50			15 50	3,019 79	Stewart " 582 50
May	3,375 00	455 00	613 55	96 40	132 00			4,671 95	Forty-Mile " 799 50
June	1,500 00	3,111 88	743 00	585 25	166 50			6,106 64	
Total	8,050 00	13,580 28	13,890 42	7,466 09	1,978 50	91 95	15 50	44,772 74	844,772 74

TOTAL RECEIPTS from Dominion Lands from July 1, 1901, to June 30, 1902.

1901.	
July	\$ 4,264 50
August	3,016 42
September	3,534 96
October	2,130 30
November	4,217 49
December	5,247 52
1902.	
January	2,869 70
February	2,841 13
March	10,062 69
April	9,986 89
May	12,474 40
June	2,297 30
Total	63,882 72

Dawson Agency, \$37,340 38
 White Horse " 6,143 75
 Selkirk " 388 59
 863,882 72

F. N. GOSSELIN,
 Crown Timber and Land Agent.

DAWSON, July 11, 1902.

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No. 4.

REPORT OF THE COMPTROLLER.

Dawson, Y.T., July 9, 1902.

The Hon. J. H. Ross,
Commissioner of the Yukon Territory,
Dawson.

SIR,—I have the honour to report that the work of my office during the past year ending June 30, 1902, has been largely on the same lines as previous years.

The revenue and expenditure of the local revenues of the Yukon Territory, which are received and accounted for through this office, amounted, during the past fiscal year, to the sum of \$553,872.86, being an increase over previous years of \$120,000. Quarterly statements and vouchers are sent to the Auditor General as usual.

The books and accounts in connection with the letter-of-credit account of the Department of the Interior are kept in this office, the payments during the year amounting to \$300,931.75; monthly statements and vouchers in duplicate are sent to the department.

The payments on account of surveys are made through this office, accounts checked and forwarded to Ottawa.

The Gold Commissioner's and Crown Timber and Land Agent's returns are sent here, where they are carefully checked over and transmitted to the department monthly.

The drafts come in every day and are sent out with a statement weekly.

The accounts for disbursements under the Department of Public Works are examined and the cheques countersigned by me as heretofore.

The payments for some salaries and for witness and jury fees for the Department of Justice are now being made through this office.

The system of collecting royalty on the creeks was abolished on April 30 last. All gold in circulation at that date, which was offered, was placed under seal and free certificates issued for its exportation. The number of ounces sealed up was 54,366.17, value at \$15 per ounce, \$815,492.55. During May there was 686.75 ounces, and June 1,384.06 ounces for which free certificates were issued; this consisted chiefly of gold mined in Alaska in transit through or being sold in this territory. There are also some amounts for which royalty had been paid before the commencement of the new system. The collections made under the present arrangement for May amounted to \$497.32; for June \$88,753.23. In weighing and sealing up this gold, the work is done chiefly at night or after office hours; this is particularly the case with large amounts.

The payments for all liquor permits issued and all other licenses under the local ordinances, excepting liquor, are made direct to my office.

The collection of all royalty and the payments on account of the Department of Justice, together with the increased amount received and disbursed in connection with the local revenues of the Yukon Territory, have greatly increased the work in my office, but it is being performed without any addition to the staff.

I have the honour to be, sir,

Your obedient servant,

J. T. LITHGOW,

Comptroller.

PART VIII.

REPORT

OF THE

LIEUTENANT GOVERNOR OF KEEWATIN

REPORT OF THE LIEUTENANT GOVERNOR OF KEEWATIN.

GOVERNMENT HOUSE,

WINNIPEG, August 30, 1902.

The Hon. CLIFFORD SIFTON,
Minister of the Interior,
Ottawa.

SIR,—In making my annual report upon affairs in the district of Keewatin during the past year, I am glad to be able to say that no occurrence calling for special notice has taken place during the year. Circumstances have prevented my paying an extended visit through the district. I have, however, come into communication with and met some of the missionaries, the principal Hudson's Bay Company's officers and others who carry on trade in the territory, and have thus kept in comparatively close touch and been made well acquainted with the condition of the native population during the past year.

The season is understood to have been again a very successful one in the fishing industry, which is now extensively pursued throughout the lake and northward in the waters of the Nelson river proper, some sixty miles or more beyond its outlet from Lake Winnipeg. From the information I have received it is gathered that the competition in the sturgeon fishing, which is now chiefly carried on at the extreme limit of the territory fished, made prices remunerative to the native fishermen and in consequence they enjoyed a prosperous winter. At the same time the fishing is now said to be carried on beyond the waters properly belonging to the treaty Indians. A fuller report, no doubt, can be furnished by the Indian agent if asked for his views concerning the matter.

The sturgeon fishing as carried on under the present method seems in the course of two or three seasons to deplete the water of this variety of fish, so that its continued prosecution necessitates the fishermen following the sturgeon into new waters. It was, I understand, at one time prosecuted with marked success throughout Lake Winnipeg, whereas now it would seem to be especially remunerative only in the river beyond.

The treaty Indians of Lake Winnipeg, there is every reason to think, have enjoyed a great measure of plenty and comfort during the year and should have no complaint to make.

A word may be said in regard to the smallpox epidemic which has been so prevalent throughout the country. I have great pleasure in being able to state that so far as I have learned, there is not evidence of a single case having occurred in Keewatin district. The disease spread amongst the Indians at Fort Alexander reserve on Lake Winnipeg from the timber camps, but this is the only evidence of it on Lake Winnipeg and Fort Alexander is in Manitoba. Mr. Chipman, the commissioner of the Hudson's Bay Company, informs me that the company took very prompt, and, as it has turned out, effectual measures to check any spread of the disease into the interior; vaccine was procured from the Department of Indian Affairs and sent to the company's different stations, and the officers of the company directed to take any step necessary to stamp out the disease should it appear. In the parts of the country where the company has control the organization would seem to be fully equal to preventing the spread of infection. It is at lumber camps and fishing stations, to which are drawn a certain number of the native population, that danger is to be apprehended.

Two or three missionaries, besides others, have visited Winnipeg from the interior of Keewatin during the past year, and all reports that have reached me speak of com-

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parative prosperity amongst the natives. No cases of serious want have come to my hearing.

I have much pleasure in stating that since my last annual report no crimes of any magnitude have occurred in the district. This continued absence of crime bears eloquent testimony to the peaceable character of the Indians and other inhabitants and to the wholesome influence exercised over them by those devout pioneers of civilization, the missionaries of the several denominations, and by the Hudson's Bay Company's officials and others. Offences of a minor nature may have been perpetrated but I feel justified in stating that there have been no crimes of a magnitude with which the local magistracy were not competent to deal. Of no other unorganized district of so extensive an area can it be said, that during a whole year no crime beyond the jurisdiction of the local magistrate has occurred.

There has been reported to me the death at Norway House of Mr. Hector Morrison, at the age of 87, the most interesting character in many respects in Keewatin, and much the most picturesque, even in this land of Indians. He was the last survivor of the companions of Dr. Rae, of the Hudson's Bay Company, who shared with him the honour of discovering and charting much of the Arctic coast of America and of the archipelago of islands in the far north belonging to the Dominion. Morrison was also associated with Sir George Back in some of the stirring events in the Arctic seas some sixty years ago. Old Hector was the proud possessor of the medal for Arctic discovery, and had been for twenty years a pensioner on the company's bounty. He wore the broad Scotch bonnet to the last and his strong Scotch characteristics will ever remain a memory in the thoughts of the people he lived amongst for so many years.

I have again to express my obligations to the missionaries of the different denominations and to Mr. C. C. Chipman, the commissioner of the Hudson's Bay Company, and others for their kindness in freely placing me in possession of any information of interest at their command in regard to Keewatin district.

I have the honour to be, sir,

Your obedient servant,

D. H. McMILLAN,
Lieutenant Governor.

PART IX.

FORESTRY

FORESTRY

REPORT OF THE SUPERINTENDENT OF FORESTRY

DEPARTMENT OF THE INTERIOR,
FORESTRY BRANCH,
OTTAWA, October 18. 1902.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the Annual Report on Forestry for 1902, being the fourth report from this branch.

The systems adopted two years ago for the protection of the existing forests on Dominion lands and for encouraging tree planting on the plains of Manitoba and the Territories have been continued and further developed as far as the limited appropriation for the purpose would admit. Appended will be found reports from some of those engaged in both branches of the work.

Forest fire rangers are employed during the dry weather. These rangers are under the supervision of the Crown Timber agents or certain other officers of the government, who instruct them when they are to commence and when to stop work; also designate the territory to be patrolled by each ranger and direct his work generally, certifying to his accounts for such work before they are forwarded to the department for payment. The cost of this service is divided proportionally between the government and the owners of timber limits.

Recognizing the benefits to be derived from a general distribution of notices warning the public against the careless use of fire during the dry seasons, more than usual efforts were made this year for having these notices posted up throughout Manitoba and the North-west Territories and the railway belt in British Columbia, and also on the Indian reserves. The Canadian Pacific and Canadian Northern Railway Companies cheerfully undertook the work of posting them up along their respective lines of road, while Mr. Chipman, the Commissioner of the Hudson's Bay Company, rendered the department and the public the greatest service by kindly forwarding a large number of notices to his officers and agents to post up along the routes of travel and at the company's posts throughout the forest regions of the far north, and that his instructions in this respect were faithfully observed was evident from the numbers of them which I noticed carefully posted up in every part of the route from Edmonton to Peace River, and I was informed by those who had made the journey down the latter river, and also the Mackenzie, that they met them everywhere in conspicuous places throughout their travels.

The reports of the supervising officers under whose directions the fire rangers acted will be read with interest by all who are concerned in the forest wealth of the country.

Now that the danger for this year is about over it is very gratifying to learn that no serious loss of timber from fire has so far occurred, either in the North-west or on the railway belt in British Columbia. In the latter tract, owing to the very dry weather that prevailed in the early summer, the rangers were put to work earlier than usual, and it will be seen from the agent's report that this strip of land extending for upwards

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of five hundred miles through a much frequented part of the country has passed through another season without experiencing any of the serious losses which visited other parts of the province as well as the adjoining states, and it can scarcely be doubted that this state of affairs may be largely attributed to the work of the fire rangers under the able guidance and supervision of Mr. James Leamy, the Dominion Crown Timber Agent for that province, whose report herewith is of special interest.

It may be added that those owning timber limits in this district have not only approved of the action of the department and paid their share of the cost, but have in many cases requested that a greater number of rangers should be employed.

CANADA AS A FIELD FOR THE WORLD'S FUTURE SUPPLY OF TIMBER.

The history of the increase in the value of forest products in Europe within the past one hundred years may be taken as an index of what the advance in price of these products will probably be in this country within the present century.

Is there any reason to think that this is an extravagant estimate? On the contrary, it is probable that the increase will be much more rapid in the future than it has been in the past, for all indications point to a timber famine in the near future. This question was very fully discussed at the last two meetings of the Royal Scottish Arboricultural Society, and I will take the liberty of making a few quotations from recent reports of transactions at those meetings. In the report of 1900, Dr. John Nisbet, in his address makes the following quotation from an article which appeared in the *London Times*, of March 17, 1899:—

‘Canada possesses in great quantity certain raw materials which are essential to the maintenance of some important American industries. Among these, none are more important than timber. It is a fact that, in the northern hemisphere, Canada is rapidly becoming the only country which can afford to export timber. The other countries which possess it in excess of their manufacturing requirements are Russia, Norway and Sweden. It is a topographical peculiarity of the Russian Empire, that the rivers traversing the principal timber districts flow into the Arctic ocean. They are, therefore, useless for the purpose of floating out logs to the markets of the world; and, so far, no method of land transport has ever been devised which will carry timber for long distances cheaply enough to bring it into practical competition with water-carried logs. The forests of Russia may for the present be regarded as commercially inaccessible. Norway and Sweden, which do export timber, are hardly able to supply the deficiency of Germany. All other nations requiring timber of the sorts grown in the northern hemisphere, must look to Canada for their supply.

‘First among these nations will soon rank the United States. It is fully recognized that, owing to the depletion of the forests of the northern states, the timber supply of the United States for all ordinary purposes of building and manufacture will not last more than a very limited number of years. The American supply of spruce for pulp wood will fall far below present requirements in five or six years, and within ten years, assuming the present rate of manufacture to remain unchanged, will be entirely exhausted. This being the case, the United States must evidently, within a very short period, look to outside supplies for the raw material upon which many of her most important industries are based. When it is considered to how many of these a full supply of timber is an essential condition of existence, it will be seen that there is little exaggeration in the statements commonly made by the far-sighted Canadian lumbermen, that the position hitherto held by cotton in the markets of the world is as nothing compared with that which timber is destined within a few years to occupy. The extraordinary development of the single manufacture of wood-pulp, which only a few years ago was practically unknown, and is now used not only for making paper, but for clothing and an immense diversity of other articles, is a sufficient indication of the practically limitless extension of the already widely varied uses of timber. “Cotton,” it is said on the other side of the Atlantic, “was once called King; but King Cotton is a lesser potentate than King Timber must soon become.”’

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After making this quotation the speaker goes on to say that 'when one considers these circumstances, it seems impossible to arrive at any other conclusion than that the days of cheap timber in Britain are now almost at an end, and that the next few years must see a rise in price, and this enhancement will be permanent and progressive.'

Again, in the report of the same society for the following year, 1901, Dr. W. Schlich, one of the best authorities in the world on the subject, gave a very exhaustive paper on 'The Outlook of the World's Timber Supply.' He says: 'The great standby for coniferous timber will be Canada, if the government does not lose time in introducing a rational management of her forests.'

M. Melard, Inspector of Forests in the service of the French Republic, in his recent work on 'The Insufficiency of the World's Supply of Timber,' says:—

'There are but seven countries at present able to supply large quantities of timber. Five are in Europe, namely, Austria-Hungary, Sweden, Norway, Finland and Russia; two are in North America, namely, Canada and the United States.

'It has been shown that the available surplus of Austria-Hungary, of Russia, and of the United States is seriously threatened by increase of population and by industrial development, and that of Norway by the abuse of the axe. There remain only three sources of supply in which confidence can be placed for yet a little time. These are Sweden, Finland and Canada.

'They are absolutely and hopelessly insufficient.

'If Sweden, Finland and Canada were to attempt to supply all the countries which reach out their hands for timber, their normal production, and their forests, too, would be disposed of completely in a very short time, revenue and capital alike.

'A timber famine is thus within sight.'

If we look back fifty or sixty years in our own country we see that timber which at that time was valueless and was burnt up in clearing the land is now of great value.

The people of this country have been slow to realize the vast heritage they possess in their forests, and consequently have hitherto taken but small pains to prevent their destruction. The loss that has been caused by forest fires in Canada is simply incalculable. This loss cannot be measured merely by the quantity of merchantable timber that has been burnt up. When one of those disastrous fires spreads over a large extent of country, as has so frequently happened, it not only destroys the mature trees but kills the younger growth as well. It also destroys the possibility of the reproduction of desirable varieties of timber for a long series of years. This can be seen wherever a fire has laid bare a pine or spruce forest. The fire having killed all the timber and burnt up any seed that may have been on the ground, instead of a reproduction of the original valuable species we find the poplars and birches taking their places. The latter varieties, owing to the less weight of their seeds and larger wings, are carried for long distances over the country, while the coniferous seeds are able to reach only a short distance from the parent tree. The result is obvious, that ages must elapse before nature can fill up the gaps with the valuable varieties of timber with which they were originally covered.

There is another point to be noted in this connection, and it is this, that our coniferous timber, which in this country is of all varieties the most valued, does not usually seek for its habitat the land best adapted for agricultural purposes. It is quite content to be allowed the waste places, the rough mountain side, the swamps and the stony tracts which the agriculturist usually avoids. If it were otherwise, and the spruce, pine, and other valuable varieties were only found in the rich valleys where the agriculturist might follow in the wake of the forest fire and turn to his profit the work it had accomplished, there would be some compensation for the loss of the timber crop.

While Canada undoubtedly possesses a very large extent of good agricultural land, it is equally true that we have extensive areas which are better adapted for, and can be more profitably utilized in, the growing of timber than for any other purpose, and when we remember that unlike agricultural products no rotation of crops need be provided

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for, as the same soil will produce without deterioration the same varieties in perpetuity, and recognizing also the undoubted fact of the certainty of an enormously increased demand for Canadian timber as so fully set forth by the authorities I have quoted, it goes without saying that every effort should be made to protect it from destruction.

I have referred in former reports to the great extent of our coniferous forests. It is difficult to estimate the real commercial value of a virgin forest. The mineral resources of a country consist of a certain definite quantity, and every pound taken out decreases the aggregate by that amount, but in the case of the forest we enter another kingdom of nature where the silent life forces are constantly at work, and as long as the conditions are favourable growth and increase of product are the result, and not only this, but with the persistency and tenacity which are one of the chief characteristics of life it provides for a reproduction of its kind so that all that is necessary is to guard it against destruction in the first place, and secondly to apply correct methods in harvesting the timber crop to insure a perpetual supply.

With these facts before us it is obvious that the timber of the country really constitutes our greatest natural asset, and that in the near future the revenue derived therefrom will enormously increase. Such being the case, it is assuredly a duty we owe to ourselves, as well as to future generations, to guard such a heritage from destruction in the first place, and secondly to apply the best possible methods for utilizing the product.

A FOREST GROWTH NECESSARY TO PRESERVE A WATER SUPPLY.

What has been said in the foregoing pages relates only to the commercial value of our forests. And valuable as they are on that account their economic uses are perhaps even more important. Fortunately Canada has not yet felt the effects of over-denudation, such as many of the older countries of the world have, but the increasing spring floods in some of the more settled parts are a warning of what will follow if the natural reservoirs at the sources of supply are destroyed. Important as this matter is in all cases it is far more so with reference to the sparsely-timbered districts of the North-west. It is no exaggeration to say that the great future predicted for that fertile region will prove disappointing in the extreme if the timber at the head waters and upper valleys of its rivers be not carefully preserved.

With this object in view certain timber reserves have been set apart, and it will be the duty of this branch of the service to continue to recommend others in advance of the settlement of the districts in which they are located, and to use every effort to prevent their destruction from fire or otherwise. In former reports each of these reserves has been dealt with at some length, and I shall not repeat what has been said, but it should be noted that during the past year the Rocky Mountains National Park has been enlarged so as to include the whole of the upper valley of the Bow river, and now contains approximately an area of 2,880,000 acres, and adjoining this on the west, the Yoho Park, consisting of about 530,240 acres, has also been set apart. This will ensure, it is hoped, the preservation of a large area of timber along the summit of the Rocky Mountains near the Canadian Pacific Railway. Another reserve consisting of three townships south-west of Kamloops, in British Columbia, has been recommended. This is in a partially timbered tract at the source of a number of streams in a district where irrigation is necessary to the growth of crops.

Much has been said regarding the preservation of timber from fire, and it may be asked what means can best be adopted for this purpose. Can the great destruction from this cause be lessened to any appreciable degree? In answer to this I would refer to the reports of the officers who supervised the work of the forest fire rangers on Dominion lands both this year and last year.

Other means such as fire guards, &c., may in some cases be of service in the woods, as they certainly are on the prairie, but experience has shown that an efficient patrol system is by all odds the most effective and least expensive.

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During the past year or two the greater demand for lumber for export to foreign markets, coupled with the increased consumption on our north-western prairies, has caused a corresponding appreciation in the value of standing timber both in British Columbia and the wooded districts adjacent to the plains, and in order to gain a more intimate acquaintance with this source of wealth on Dominion lands in those parts I spent nearly four months of the past summer and autumn in inspection work in those districts. Part of this time was spent on the railway belt in British Columbia, and more recently in a visit to the district lying between Edmonton and the upper waters of the Peace river.

The railway belt with respect to timber is divided into three districts: First, that extending from the coast to the neighbourhood of Lytton; second, that between Lytton and the upper end of the Shuswap lakes; and third, that lying between the upper end of these lakes and the east boundary of the province. The first and third are essentially forest sections, and the second, which is known as the 'dry belt' owing to the very light annual precipitation, partakes more of the appearance of the prairie, though occasional belts of timber, chiefly bull pine (*Pinus ponderosa*), are met with. The first or coast section, notwithstanding the destruction wrought by forest fires, contains a very large amount of excellent timber valuable for lumber purposes, the varieties being cedar (*Thuja gigantea*), Douglas fir (*Pseudotsuga Douglasii*), western white pine (*Pinus monticola*), spruce (*Picea sitchensis*), and the western hemlock (*Tsuga mertensiana*). It is worthy of remark that this hemlock makes far better lumber than our eastern hemlock, and is now coming into very general use.

The principal lumber tree between the Rocky Mountains and the plains is the spruce, mostly the white spruce, and from its position near the prairie there is no doubt that it will be more and more sought after to meet the increasing demands from that quarter.

The country along the upper waters of the North Saskatchewan, the Athabaska and Peace rivers is partly prairie and partly wooded. The varieties of timber are principally aspen and balsam poplar, the former predominating, and white spruce. The poplars as we go north seem to increase in size and height, and as we approach Lesser Slave Lake and between this lake and the crossing of the Peace river below the junction of the Smoky, they grow very clean and straight, trees not over a foot or fourteen inches reaching a height of seventy or eighty feet, making excellent building timber as well as fencing and fuel. In some parts there are stretches of good spruce well adapted for lumbering purposes. There has so far been but little destruction from fire in this quarter. The land is mostly level, the soil excellent, and if the summer frosts do not prevent it, the country will begin soon to settle up and there will be an ample supply of timber for local uses if not for export to the adjoining prairie regions.

TREE PLANTING ON THE PLAINS.

This work, which is one of co-operation with the settlers, has been continued and is now assuming large dimensions. Mr. Ross, the Assistant Superintendent, and Mr. A. P. Stevenson have been employed all summer inspecting the land of applicants. It was found that they would be unable to overtake the whole of the work before winter, and in order that none should be disappointed who had applied for trees to be delivered next spring, Mr. Archibald Mitchell, of Macleod, and Mr. John Caldwell, of Virden, were engaged for a few months to assist in the work. These gentlemen are well qualified for the task. Mr. Mitchell, who is now a farmer near Macleod, was engaged for several years as a forester for Lord Rosebery, in Scotland, and also on the estates of Lord Dunraven, in Wales, and since his coming to the North-west has given special attention to the growing of forest trees in his neighbourhood. Mr. Caldwell has been engaged for some time in raising forest trees at his nurseries at Virden, from which he has supplied settlers in different parts of the Territories with plant material.

It is expected that the work of inspection will be completed by November 1.

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In the spring of 1901 a beginning was made by furnishing 44 settlers, who had their ground prepared, with seedling trees. In all 58,800 trees were sent out at that time.

In the spring of 1902, 415 settlers were supplied, the aggregate quantity being 468,900 trees. The varieties were Manitoba maple (*Acer negundo*), cottonwood (*Populus monilifera*), willow (*Salix acutifolia*) and elm (*Ulmus americana*). In addition to these 347 pounds of maple and 217 pounds of ash seed were supplied to 102 settlers. There are in all 1,006 applicants whose land is being examined this season with a view to planting next spring.

Applications are now being received from those who desire to have their places examined next season with a view to making preparation for receiving trees for planting in 1904. It is quite certain that this number will considerably exceed that of the preceding year.

The inspectors were instructed to take note as to the condition of the trees that were sent out first, that is, in 1901. The summer of that year being generally wet, was very favourable to tree growth, and consequently a great deal of wood was made. This was succeeded by a trying winter, as there was very little snow and the young trees were therefore left with but little protection from the winter frosts. Notwithstanding this, Mr. Ross reports that in the Territories where the conditions for tree growth are less favourable than in Manitoba, 75 per cent of the stock set out in the spring of 1901 is now growing. Mr. Stevenson has not reported the percentage in Manitoba, but the showing there is no doubt better.

Regarding the trees sent out in the spring of 1902, the reports state that they are nearly all now doing well. From this information it would seem that the project is meeting with a considerable measure of success.

The matter of being able to supply the applicants with seedling trees has been one of some concern, and fears were expressed that it might be impossible to meet the large demands that would be made. I am glad, however, to be able to report that the nurseries established by this department at the Experimental Farms at Brandon and Indian Head through the kind permission of the Minister and officers of the Department of Agriculture, will furnish over 1,000,000 trees for transplanting next spring. In addition to these we will probably have 150,000 maples and Russian poplars from Mr. Caldwell, at Virden. So it may be safely assumed that all applicants who have their ground properly prepared for next spring's planting will receive their full complement of nursery stock.

It should be stated that those availing themselves of the advice and assistance of the department are not confined to any particular locality; on the contrary, they are from all parts of the plains region, from the Red River to the foothills of the Rockies. The plantations being thus distributed, object lessons will be afforded to the settlers throughout the whole country, and one of the main objects aimed at, namely, the education of the people of the west in forest cultivation, will be attained.

The following table shows the quantity of nursery stock provided for distribution by this branch:—

At Brandon Experimental Farm.

Trees now taken up and healed in for distribution next spring:

Manitoba maples.	382,000
Green ash	40,000
American elm.	7,000
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Total.	429,000

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At Indian Head Experimental Farm.

Estimated:

Manitoba maples	300,000
Green ash	100,000
American elm	40,000
Total	440,000
Cottonwoods from Bismarck, N.D.	300,000
Total	1,169,000

(Not including Russian poplar and Manitoba maples from Virden.)

Estimate of trees left growing, being too small for next year's distribution.

Manitoba maple	180,000
Green ash	395,000
American elm	45,000
Scotch pine, one year old	25,000
European larch, one year old	18,000
White spruce, one year old	5,000
Native birch, one year old	500
Total	668,500

As the gathering of seed has not yet been finished, no definite figures can be given at present of the quantity that will be available for distribution next spring, but there is no doubt the demands will be fully met.

THE CANADIAN FORESTRY ASSOCIATION.

The report of the third annual meeting of this association has been recently issued. It is well printed and illustrated, and contains a number of very valuable papers with discussion thereon by members from all parts of the Dominion. The meeting, which was held in the Railway Committee Room of the House of Commons, lasted two days, and the attendance and interest manifested were worthy of the important subjects dealt with. Dr. B. E. Fernow, for many years Chief of the United States Division of Forestry at Washington, and now Dean and Director of the New York State College of Forestry, was present and took an active part in the discussions, and on the evening of March 6 delivered a very interesting address to a large audience in the Ottawa Normal School hall on the Evolution of a Forest Growth.

The directors reported a membership on March 6 last of 347, nine of whom are life members.

Though the association has no connection with this department, it is regarded, from its representative character and the high standing of its membership, drawn from all parts of the Dominion, as a very valuable auxiliary to this branch, and worthy the assistance which has been given it.

I have the honour to be, sir,

Your obedient servant,

E. STEWART,
Superintendent.

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APPENDIX No. 1.

REPORT OF THE ASSISTANT SUPERINTENDENT.
NORMAN M. ROSS, B.S.A.

INDIAN HEAD, ASSA., August 14, 1902.

E. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I have the honour to submit herewith a report of my work carried on under your direction since September, 1901.

Up till November 16, I was engaged in visiting and inspecting the land of those applicants who were desirous of availing themselves of the co-operative scheme of tree planting to obtain seedlings and seed for setting out on their farms in the following spring. During this time I visited 180 applicants, whose farms were distributed over a large extent of territory, 135 living in Assiniboia and 45 in Alberta.

Late in September the nursery stock grown at Indian Head and Brandon was dug, the trees counted and tied in bundles, and then buried for the winter ready for shipping in the spring.

On November 16, I left the west to return to Ottawa where I remained during the winter working in the office, preparing lists of trees for distribution and making planting plans in such cases as they were thought desirable for the assistance of applicants when setting out the trees in the spring. Arrangements were also made for the purchase and delivery of such supplies as moss, burlap, labels, &c., necessary for packing and shipping the seedlings and seed. Towards the end of February, I again left Ottawa for the purpose of attending a number of Farmers' Institute meetings throughout South-eastern Assiniboia and Southern Alberta. Meetings were held at the following points in Assiniboia:—Wapella, Fairmede, Glen Adelaide, Arcola, Alameda, Gainsboro', Elmore, Carnduff, Oxbow, Estevan, North Portal, Weyburn, Yellowgrass, Moosejaw, Caron, Maple Creek and Medicine Hat. In Southern Alberta meetings were held at Raymond, Stirling, Magrath, Cardston, Mountain View and Fishburn. The last meeting was held on March 24, after which I returned to Ottawa to make final arrangements for the summer's work.

About the middle of April I started west, and after spending a day at Brandon, where distribution of seedling stock was just commencing, I went on to Indian Head and stayed there throughout the packing and distribution of the nursery stock, and until after the seed had been sown and other spring work finished.

Early in June I received from Ottawa a list of applicants whose places are to be visited this season, and since then I have been engaged altogether in this work. The number of applicants having increased to such an extent and the territory to be covered being such a large one, Mr. Mitchell, of Macleod, was appointed as agent to look after the work in Alberta. On August 12, I visited Calgary, where I met Mr. Mitchell, and furnished him with the names of those applicants in his district, and also gave him instructions regarding the carrying on of the work.

Applications for tree planting.—The number of applications for assistance in tree planting is rapidly increasing, but it is still small compared to what it will be as the scheme becomes more generally known, especially in those districts in which plantations have already been started, where the settlers can see for themselves the exact nature of the work. There were 15 applications for assistance in planting in the Territories in the spring of 1901, for 1902 there were 183, and I have on my list for 1903, 436 names.

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In a year or so, if the plantations already set out prove at all successful, the applications will increase to such an extent that the work of inspecting and providing nursery stock will assume very large proportions indeed. Plant material is not, of course, furnished to every one making application. Up to the present time I have visited 162 applicants, but only 75 of these will receive trees next spring. In most cases the reason for not supplying trees is owing to the lack of preparation of the soil. In some cases the farms of applicants are already well protected by natural timber, and more trees are desired simply for ornamental planting which, of course, does not come under the work of this branch. Others again are not prepared to fence the trees after planting, which is very necessary in a country where so much stock is allowed to run loose during certain seasons of the year.

Planting already done.—In the spring of 1901 eleven applicants received material for tree planting, the total area planted being about thirteen acres. With only two exceptions these plantations did very well up till last winter, at least 75 per cent of the total number of trees set out being in good condition. Last fall was very wet throughout the Territories, and this encouraged late growth, and consequently much of the new wood formed during the season failed to ripen, and was cut back by the frost, which was rather severe during the early part of the winter. Until late in the winter very little snow fell, and the young plants were consequently entirely unprotected, and when growth started in the spring it was found that many of the young trees of maple, cottonwood and ash were cut back to the ground, and in a few cases even the roots were killed. The few elms set out did not seem to be at all affected, but stood the winter well. Most of the seedlings cut back in this way sprout up again from the roots, making good growth, and should stand the second winter without killing back, if the growing season does not again extend too late into the fall.

This spring 91 applicants were supplied with trees from Indian Head, the total number of seedlings and cuttings sent out being 106,000, consisting of 33,256 maples, 53,648 cottonwoods, 2,000 elm and 17,096 willow cuttings. Together with 318 pounds of maple and 200 pounds of ash seed this amount of stock would be sufficient to plant up about 45 acres of land. This season has been an especially favourable one for tree planting, and I may safely say that at least 99 per cent of the total number of seedlings set out are living and have made good growth up to the present time. Most of those receiving trees were at the same time supplied with a few pounds of maple and ash seed, which in most cases has been well sown, resulting in good crops of seedlings which will be used for filling up blanks in the plantations, and also for further planting.

Without exception all seedlings set out this spring have been well planted and cared for so far as I have at present had an opportunity of inspecting them. In a very few cases planting has not been carried out according to plans furnished, with the result that the trees have been mixed in such a manner that the plantations will not grow to best advantage, although this may not be at present apparent to those who are not acquainted with the habits of growth of the various trees. On the whole, however, instructions have been followed out as closely as circumstances permitted, and the results of the first season's work are certainly very encouraging.

The maple and elm seedlings used in distribution were all raised on the Indian Head farm, and the willow cuttings were also taken from stock growing there. The Dakota cottonwoods were obtained from Bismarck, in North Dakota, near which place they grow in immense numbers in the sand bars along the Missouri river. These seedlings were pulled and delivered at Brandon and Indian Head late in the fall and were immediately buried. This tree will evidently stand a great amount of rough usage, as those delivered at Indian Head arrived exactly one month from date of shipment. There was practically no packing amongst them, and the bundles were frozen solid, and at the time they were buried the temperature was below zero. However, they did not seem to be at all affected by these conditions. Several hundred were planted in the nursery here this spring, and at least 95 per cent grew.

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Distribution of plant material.—In the spring as soon as the frost was sufficiently out of the ground the seedlings which had been buried over winter were uncovered and bundled up for shipment. The packing commenced at Brandon about April 21, and at Indian Head on the 28th. Each applicant was notified some days ahead as to the date on which the trees would be shipped so that he might know when to get them from the station. An addressed postal card was also sent to each one, which was returned upon receipt of the trees, stating date of delivery and condition of the stock upon arrival.

At Brandon some small sheds were available for packing in, but at Indian Head all the work had to be done outside, and as the weather was at times very cold and windy the work was carried on under very disagreeable conditions, and had the weather proved at all bad operations would of necessity have been entirely suspended. As it is of the utmost importance that the work of distribution should be carried out with the greatest despatch, not only in order that the trees may arrive at their destination in good time, but principally that the work may be got over before the time arrives for sowing seed and other nursery work which has to be done while there is still plenty of moisture in the soil, it was found necessary to erect a rough building to be used for this purpose next spring, and also to act as a storehouse for seeds and as a tool room. This building is 32 feet by 14 feet with an upper storey or loft where seed, bags, &c., will be kept over winter. The lower floor will be used for packing and tool room, with a small room at one end for a rough office.

Nursery work.—For the raising of nursery stock somewhat similar arrangements to those followed out last season were made with the Experimental Farms at Brandon and Indian Head. At Brandon about 300 pounds of maple seed and a similar quantity of ash was put in, and later on in June a quantity of elm was picked and sown, in all covering about six acres. During the latter part of June very heavy floods in the Assiniboine river damaged a considerable quantity of the stock which was just commencing to germinate and totally destroyed $2\frac{1}{2}$ acres of maple seedlings, which were covered with water for several days. The remainder of the stock, however, germinated well, and has made strong and rapid growth.

At Indian Head a larger quantity of seed was put in, in all about 7 or 8 acres of maple, ash and elm. On the whole the stock is healthy and has grown well and will make strong plants for shipping next spring, but owing to the very wet spring and the uneven surface of the land which has been placed at our disposal large quantities of water lay in the lower places and drowned out a great number of small seedlings. As estimated at present we shall have for shipment from this point between 500,000 and 600,000 seedlings. This number can be greatly increased by the addition of willow cuttings if found necessary.

Besides the maple, ash and elm, five pounds of Scotch pine, five pounds of larch and a similar quantity of spruce seed was also sown. These were put in specially prepared beds which can be shaded with slat screens during the summer. All this seed germinated very satisfactorily with the exception of the spruce, which was perhaps put in somewhat too late. Although the season was exceptionally wet we were not troubled with excessive damping off of seedlings.

The following is an estimate of stock at present growing in the Indian Head nursery :—

Maple	350,000
Ash	225,000
Elm	50,000
Scotch pine, 1 year old	25,000
European larch, 1 year old	18,000
White spruce, 1 year old	5,000
Native birch, 1 year old	500
Total number of plants	673,500

The increasing number of those making application to this branch for assistance in tree planting will very shortly necessitate the establishment of some different ar-

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rangements for the raising of nursery stock from those we are at present working under. The area of land which can be placed at our disposal on the Experimental Farms is necessarily limited, and in many respects is not altogether suited for nursery purposes. The extent and importance of the work certainly warrant the establishment of at least one large nursery at some suitable point along the railroad, and in fact it is the only way in which this part of the work can be economically carried on.

In connection with the nursery it would also be advisable to have some extent of land so that plantations of various mixtures could be set out and careful data kept as to the rate of growth, yield and cost of management. At present, although sufficient planting has been done on the prairies to prove that the raising of fuel and fencing material is perfectly practical, at least in most districts, still no absolutely reliable data as to cost of establishing such plantations, the most suitable mixtures to plant out, or yield to be derived under proper management, can be gathered. It certainly would prove a great stimulus to tree planting if it could be shown by actual figures that such work is financially profitable, as it undoubtedly is. In cases where farmers have to go forty or fifty miles for wood, as they often do in this country, the fact that such wood can be profitably grown at home should prove a strong inducement to setting out plantations. It is only a question of a short time before tree planting for fuel and fencing must become general on the prairies. The country is rapidly settling up, and even now quantities of fire wood are being shipped into many districts where the natural supply has been exhausted. The sources of supply for this fuel are also limited, and the demand fast increasing, so that economic tree planting will soon be a necessity, and any reliable data as to the best methods of planting and management will prove of inestimable value to the settlers.

Collection of seed.—In the fall of 1901 it was found that the maple seed in the Territories, and even in the western part of Manitoba, was so badly affected by some fungus as to be absolutely useless. The seed growing in the district around Portage la Prairie proved to be perfectly healthy, and arrangements were made for the collection of as large a quantity of the seed as possible. Owing, however, to the heavy wheat crop and the scarcity of labour it was almost impossible to get men to pick the seed, and consequently only about 800 pounds could be obtained. A quantity of seed from Minnesota was also purchased in order to make up the necessary amount. The crop of ash seed was exceptionally heavy, and about 1,000 pounds of this seed was picked by Half-breeds in the Qu'Appelle valley north of Indian Head.

Next spring we shall require about 2,000 pounds of maple, and at least 1,000 pounds of ash seed. The maple seed in this district is again very badly affected by the same disease as last year, but it may be possible to find some good seed in the valleys. The ash seed is very scarce this season, and it may be difficult to get the amount desired. The elm did not bear a very heavy crop this year, and the seed was not of the best quality. About eight pounds (dried) was sown at Indian Head in June, and about twelve pounds at Brandon.

To supply the demand for planting in the spring of 1903, considerably over 1,000,000 seedling plants will be necessary. If the applications increase as rapidly as they have done up to the present time, as there is every indication that they will, about 3,000,000 plants will be needed in 1904, and probably double that number in 1905. To raise such a number of plants must necessarily entail a considerable expense and a large amount of labour for which the present facilities for nursery work are totally inadequate. It has been shown by the way in which the settlers are taking advantage of the co-operative scheme that it is a very popular undertaking which, aside from the fact of its great benefit to the country as a whole if only systematically carried on over a sufficient length of time, should warrant an appropriation which would enable the work to be carried on in an efficient manner.

I am, sir, your obedient servant,

NORMAN M. ROSS,
Assistant Superintendent of Forestry.

APPENDIX No. 2.

REPORT OF THE GOVERNMENT AGENT FOR TREE PLANTING IN
MANITOBA. A. P. STEVENSON.

NELSON, MAN., October 14, 1902.

A. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I have the honour to submit the following brief report on the work done by me, under your direction, as forestry agent, in connection with the work carried on in this province by the Forestry Branch of the Department of the Interior.

In accordance with instructions received from you, on April 9 I proceeded to the Experimental Farm, Brandon, to make arrangements for the shipping out of plant material to the various applicants through the province whose grounds had been inspected the previous summer, and where the necessary preparations had been made according to the rule laid down by the Forestry Branch. The first work undertaken was the preparing of Russian willow cuttings. The labour of Indian boys from the Industrial School was used to advantage in this work. Over 30,000 cuttings were made and tied in bundles of one hundred each, then heeled in and used as shipping went on. Shipping out of plant material commenced on April 19. Notices were sent to all applicants several days previous to shipping, stating the varieties and total number being sent and the probable date of shipping so that they could be on the lookout for their trees and as little time be lost as possible between shipping point and destination. The spring was cold, wet and backward, and while very unfavourable for agriculture was a very favourable one for our work, giving us a long period of fine cool shipping weather. All shipping of trees was finished on May 17. Three hundred and thirty applicants were furnished with trees, making a total of trees and cuttings sent out of nearly 400,000, principally such quick growing varieties as cottonwood, maple and Russian willow. A few thousand elms were also sent out. The sowing of ash seed was begun during the first week in May, and maple seed on the 15th. Over forty pounds of elm seed was collected and sown. Seed was secured from the trees on the Indian school farm. Elm seed was injured to a considerable extent by a small leaf beetle, consequently a good deal of difficulty was met with in securing even a small supply of the seed of this very desirable tree.

In company with Mr. Ross, the Assistant Superintendent of Forestry, a visit was made to the spruce woods near Sewell, and about 6,000 small spruce and 2,000 tamarack were collected and shipped to the Indian Head Experimental Farm and planted there for Forestry Branch purposes.

The inspecting of the farms of the various applicants availing themselves of the benefit of the co-operative tree planting scheme for 1903 was begun on June 13. The condition of trees sent out by the Forestry Branch in the spring of 1901 and 1902 was also noted. It was found that of the trees sent out in the spring of 1901 a considerable number had been injured the following winter. Without doubt this was caused from the almost entire lack of snow during the past winter, an extra strong growth of wood having been made the previous summer. It was noticed that trees four years old also suffered to a considerable extent from the effects of the winter.

I take great satisfaction in reporting on the fine showing at the present time of the trees sent out this spring. I estimate that 90 per cent are growing; 95 per cent of the Russian willow cuttings have grown. In some cases a growth of four and a half feet

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was measured. The spring has been a very favourable one for the growing of young trees. This, together with the thorough preparation of the soil, which is insisted upon by the Forestry Branch, has contributed largely to this favourable showing.

Towards the end of July I received instructions to prepare a forestry exhibit for the summer fair at Brandon. The native timber sections secured in southern Manitoba last winter were sawn at the mill in Brandon as per diagram furnished. The sawn sections were dressed, and show clearly the grain of the timber. All of the woods native to Manitoba were shown, also young seedling trees, one, two and three years old, in their various stages of growth. The exhibit was left in charge of Thomas Robertson, who reports that a lively interest was taken in the exhibit by visitors, who were much surprised at the size and soundness of the sawn sections of oak, elm, ash, birch, maple and basswood.

As instructed, on July 24 I visited Mr. Caldwell, of Virden, who had been appointed to assist me in the work of inspection this season, and gave him all necessary instructions regarding the work, also a list of 160 applicants to be visited. Mr. Caldwell commenced on this work on July 25.

I was also instructed to make arrangements regarding the collection of maple and ash trees in Manitoba. I visited Portage la Prairie on September 2, and arranged for the delivery at Brandon and Indian Head of 1,000 pounds of maple seed and 300 pounds of ash seed, the quantities to the different places to be arranged later. The tree seed appeared to be of very fair quality at the Portage. It seems that the Indians are the only persons who can be got to gather it.

Up to the present time I have visited and inspected the farms of 440 applicants. A proportion of these will not plant next year on account of not having suitable preparation. The general care of the trees set out by the farmers has been very good; better than I expected. They are earnest in their desire to have trees, and the general success attending their efforts in that line has greatly encouraged them to persevere in the good work of growing a good sized shelter belt and wood-lot on the prairie.

I received instructions to address a Farmers' Institute meeting on October 9 at Carman, Man., this being the date on which the agricultural society held its annual fair. The meeting was fairly well attended and keen interest taken throughout, especially in the question of tree planting on the prairie, and in the co-operative scheme of tree planting as set forth by the Forestry Branch, very indistinct ideas of which appeared to prevail at this place.

The maple, ash and elm seedlings grown on the Experimental Farm, Brandon, by the Forestry Branch have all made extra fine growth, with the exception of a small portion that was flooded by the rise of the Assiniboine river. I noticed the seedlings were kept well cultivated, the result of which will be an extra fine lot of young trees to meet the demands of applicants in the spring of 1903.

I am, sir, your obedient servant,

A. P. STEVENSON.

Agent.

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APPENDIX No. 3.

REPORT OF ARCHIBALD MITCHELL, GOVERNMENT AGENT FOR TREE PLANTING IN ALBERTA.

MACLEOD, ALTA., October 1, 1902.

E. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I have the honour to submit herewith report of my work in connection with the government's co-operation in tree planting on the prairies.

On August 11 I met you at Macleod, and accompanied you to Calgary to meet Mr. Ross. There I received my list of persons to be visited and my final instructions.

The heavy rain of this summer had rendered the country to the north difficult of access, and I therefore returned to Macleod on the 14th to go over the south country first. From Macleod I went to Mountain View, and so round the Mormon settlement to Lethbridge. From thence I went north and visited all applicants as far as Lacombe. I then went east to the districts round Medicine Hat and Maple Creek, which ended my tour of inspection in this part of the country.

I found the trees already supplied had as a rule done very well, and the seeds had also germinated well and made good growth. The floods of May and July had delayed cultivation in some cases, and there the trees had not made quite the growth exhibited by those where regular cultivation had been possible. The difference was most marked in the case of the Manitoba maple (*Acer negundo*). About the end of August and the first week of September we had some frosts which touched the tips of some of the cottonwoods and a few of the maple seedlings, but not, I think, enough to cause any decided set back.

Only three of the ranchers who applied for trees, and whom I have visited, have failed to make preparation for trees. One of these had left the country, another had had his horses killed by lightning, and the third had simply been unable to overtake the work. All the others had prepared more or less land, most of which was suitable for planting.

I have everywhere found the keenest interest taken in tree planting, and also apparently a full appreciation of the help I was able to give. I have always made it my endeavour, besides estimating the number of trees required, and satisfying myself as to the condition and suitability of soil and location, to make each man thoroughly understand how to plant his trees when he gets them, and to impress upon him the necessity for thorough cultivation afterwards.

I have the honour to be, sir,

Your obedient servant,

ARCH. MITCHELL.

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APPENDIX No. 4.

REPORT OF CROWN TIMBER AGENT AT NEW WESTMINSTER,
JAMES LEAMY.

CROWN TIMBER OFFICE,

NEW WESTMINSTER, B.C., October 14, 1902.

E. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I beg to submit herewith a short report of what has been done under my supervision respecting the fire protection for this season, and the results of the working of the system of fire wardency in the railway belt of British Columbia.

As you are aware, eight wardens were appointed this year, and were actively employed in their various districts in looking after fires.

In the district east of the Selkirks, which was looked after by Mr. Milligan, several fires occurred which were promptly attended to by the ranger and extinguished without having done any serious damage; notably one which occurred on Mr. Wells' timber berth on the Beaverfoot river, which was caused by the carelessness of a man in the employ of Mr. Wells as a watchman on the said limit. He, intending to clean out the logging camp of the previous season, removed the straw and other inflammable material from within the camp, made a pile of it outside and set fire to it. A sudden gust of wind arising just about that time, the blazing straw was carried quite a distance away and set fire to the dry grass and underbrush, spreading very rapidly, and getting immediately beyond the control of the watchman. Mr. Wells closed down his mill and sent all his men to fight the fire, and they confined it principally to the worked out portion of the limit in question, so that the loss of merchantable timber did not amount to over a million feet, which will be taken out this winter and manufactured. A rain coming on after several days assisted very materially in putting out the fire in question, and no further damage was done thereby.

Another fire occurred on the Bluewater creek, on berth No. 20, north of Donald. This fire, as far as can be ascertained, was set by lightning, but was got under control after several days' work, without having done any damage. It merely burnt through a portion that had been previously burnt over years ago, and which did not contain any merchantable timber.

The third fire was on the summit at Six Mile creek in the Selkirk range. This was also on a place that had been burnt over previously, and was undoubtedly caused by lightning. It did not do any damage whatsoever.

These were the only fires of any consequence that occurred within the railway belt in the province of British Columbia, although the season was an exceptionally dry one. Innumerable small fires occurred all through the belt, the majority of which were set by settlers clearing their lands, and, in some instances, by sparks from locomotives and fires left carelessly by campers, all of which were promptly attended to by the rangers in their various districts and were carefully watched and not allowed to spread. I might say that one fire occurred about six miles west of Agassiz, which burned out the timbering of a tunnel on the line of the Canadian Pacific Railway, delaying the trains for several days. The origin of this fire cannot be properly traced beyond the fact that it began outside of the tunnel.

I may say that across the boundary line in the states of Washington, Oregon and Montana to the south of us, enormous tracts of forest were completely destroyed by

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fire, and, sad to relate, a number of lives were lost and thousands of persons rendered homeless.

On Vancouver Island large fires occurred, principally in the Chemainus and Sooke districts, destroying valuable timber. There were also very large fires up the coast, north of Vancouver city. For many days the smoke arising from these fires was so dense that it was a serious impediment to navigation along the coast, and extended as far east as Kamloops, obscuring the sun and rendering the atmosphere dense and murky.

I attribute our immunity from large fires in the railway belt to be largely due to the efficient manner in which the fire rangers attended to their duties.

I may say that the newspapers of the province have taken notice of the work of the rangers and commented very favourably thereon.

I would respectfully suggest that the provincial government be requested to put on two months close season, totally prohibiting the setting out of fires during that period, and would suggest that the time should be during part of June, the whole of July and part of August. However, this matter could be determined upon consultation.

All of which is respectfully submitted.

JAMES LEAMY,

Crown Timber Agent.

SESSIONAL PAPER No. 25

APPENDIX No. 5.

REPORT OF THOMAS YOUNG, FOREST RANGER, RIDING MOUNTAIN
TIMBER RESERVE.

DAUPHIN, October 28, 1902.

E. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I have the honour to forward you the following report of work done for the Forestry Branch during the past year:—

I have exercised a general supervision of the work of cutting done in the Dauphin district, which extends along the east and north of the Riding, Duck and Porcupine Mountains. The lumbering operations were hampered during last winter through lack of snow, but about 12,000,000 feet, board measure, was cut for commercial purposes, and over 200,000 railway ties were manufactured.

Actual settlers had over 2,000,000 feet, board measure, cut for their use by portable mill in this district.

The work of limit holders has been fairly well done, and no undue waste has been observed in their operations, but some irregularities were evident in the operations conducted by portable mill operators—chiefly wastefulness through having defective machinery and a disposition to exceed the rights granted to permit holders.

In the matter of fire protection and the prevention of prairie and forest fires, I have to report that the past season has been generally favourable for this district, and although there is a great temptation to the settlers along the base of the mountains to use fire as an agency to clear the scrub lands, no great damage has been done during the past year, and the settlers generally are becoming more careful in the use of fire.

I have had three forest fire rangers on duty during the spring and fall season, one along the Duck, one along Porcupine, and one along the Riding Mountains.

These men have been on constant duty patrolling their districts, posting notices, and assisting to extinguish fires that may have been started, and I think their services have had an educative influence.

The forest fire rangers complain that their remuneration is not sufficient for their labours, and I have experienced a difficulty in retaining good men from season to season.

I am, sir, your obedient servant,

THOMAS YOUNG,
Forest Ranger.

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APPENDIX No. 6.

REPORT OF C. A. WALKINSHAW, FOREST RANGER.

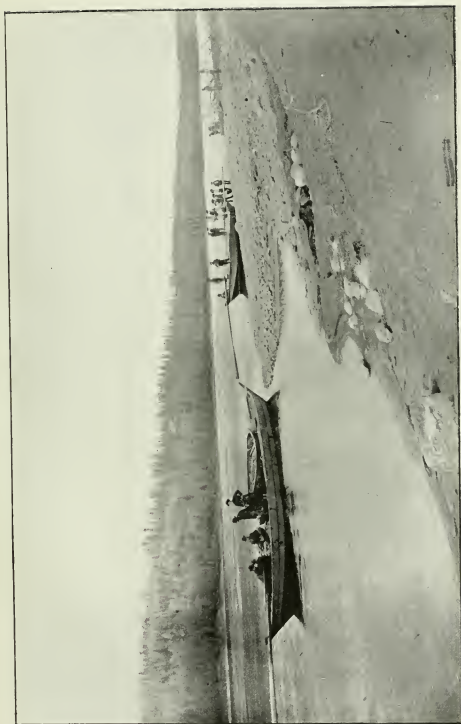
BOISSEVAIN, October 16, 1902.

F. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

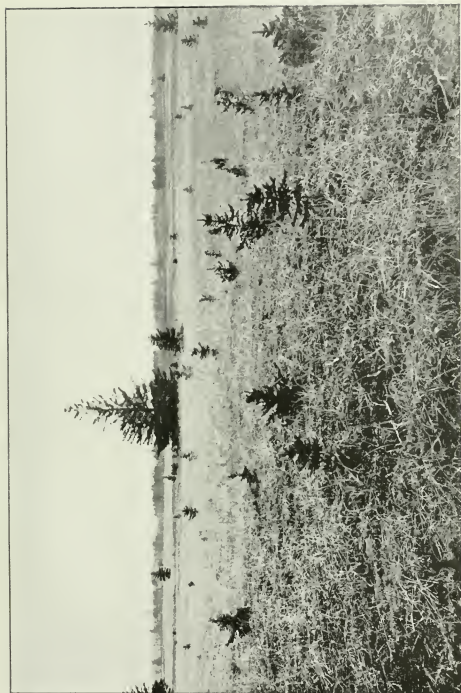
SIR,—Now that the year is drawing near its close I have to report to you on the condition of affairs in the Turtle Mountain timber reserve over which I have charge, and to say that the past season has been a most successful one. The growth of the young trees has been remarkable. I refer particularly to the young stuff that has sprung up since the late disastrous fires. The last season was favourable, and this one has been more so, as a large quantity of rain fell over the area covered by the reserve. The fire break running through the reserve from north to south has been kept clean, and is in an efficient condition. We have been threatened by fire set out on the land south of the boundary line, but we have kept diligent watch and prevented it from coming in on us. With the present favourable conditions and freedom from fire, I anticipate the greatest success from our efforts.

I am, sir, your obedient servant,

C. A. WALKINSHAW,
Forest Ranger.

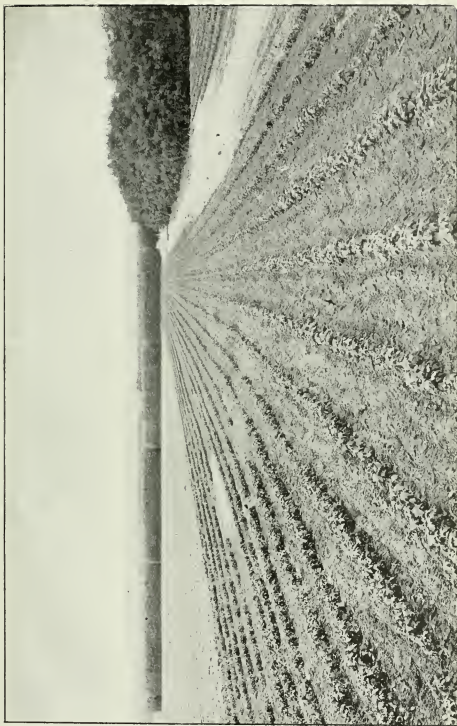


ON THE ATHABASKA RIVER.

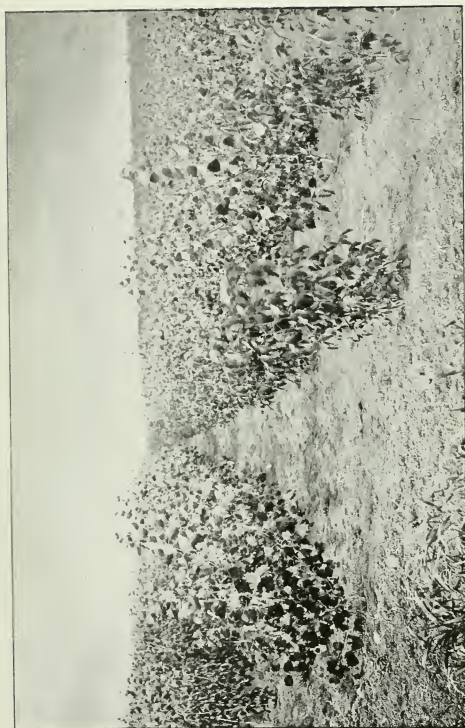


Spruce Woods Reserve, S. E. of Sewell, Man.

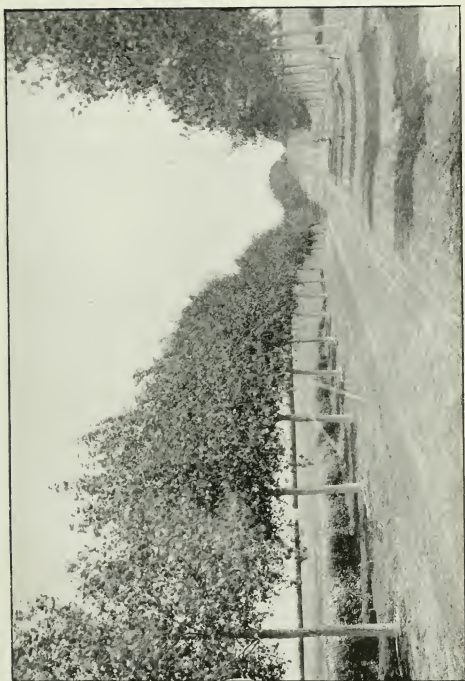
Young Spruce from 2 ft. to 3 ft. high coming up scattered over Prairie. If protected from fire for some years this district would soon become naturally re-forested.



SEEDLING MAPLES, A FEW MONTHS OLD,
Growing in nursery rows, at the Brandon Experimental Farm, to be used for distribution purposes in Spring of 1905.



PLANTATION SET OUT ON FARM OF G. & B. SPRING-RICE, PENSE, ARIZ.,
Under co-operative system in Spring of 1901. Photo taken August, 1902. The trees are Dakota Cottonwood and Manitoba Maple.



AVENUE OF COTTONWOODS, EIGHT YEARS OLD, ON EXPERIMENTAL FARM AT INDIAN HEAD, ARIZ.

